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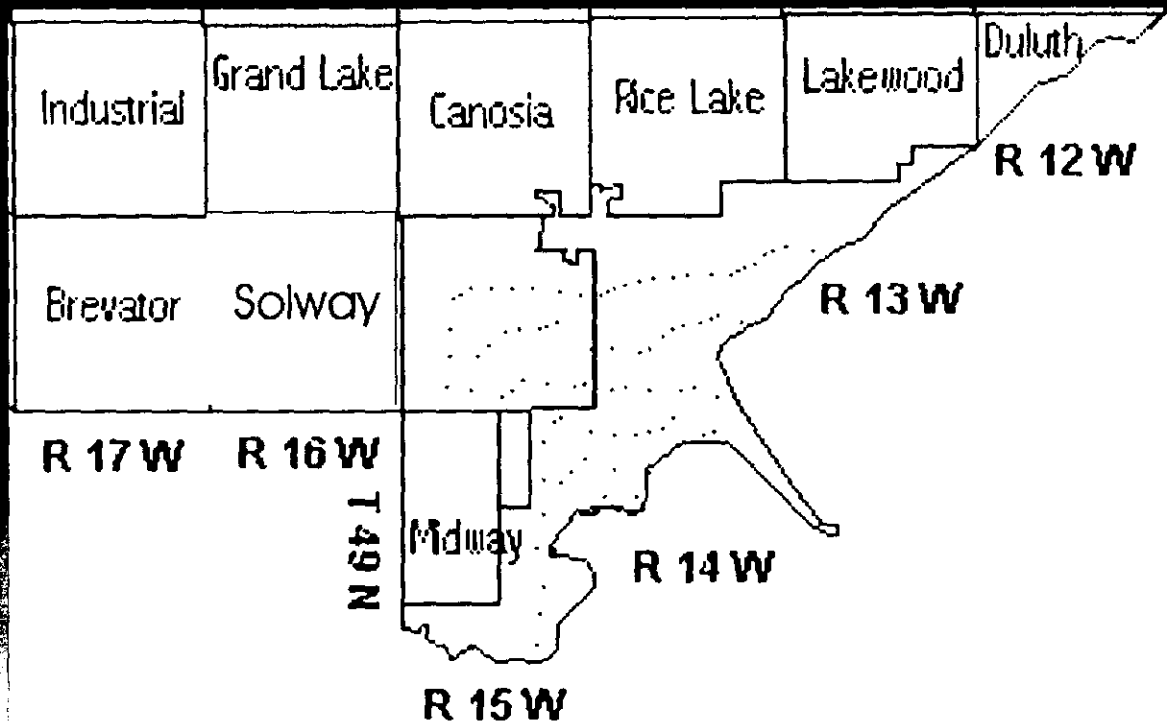
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ARTICLE II, SECTION 1
OF
ST. LOUIS COUNTY, MINNESOTA
ORDINANCE #27



SOLWAY TOWNSHIP
COMPREHENSIVE LAND USE PLAN

Solway Township Comprehensive Land Use Plan





ARROWHEAD REGIONAL DEVELOPMENT COMMISSION

Planning...Success

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Memorandum

To: St. Louis County Planning Commission
Cc: Mark Johnson
From: Rudy Schoolderman, ARDC
Date: December 27, 2000
Re: Solway Township Comprehensive Land Use Plan

Please find enclosed the draft comprehensive land use plan for your review. The Solway Township Supervisors will meet January 9th to formally take action and make a recommendation to the St. Louis County Planning Commission to accept the Solway Township Comprehensive Land Use Plan.

The Solway Township Supervisors will sent you a formal letter after their meeting on the 9th with their recommendation.

| |
|----------------|
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|----------------|

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Plan Background

PLAN BACKGROUND

Introduction

The Solway Township Comprehensive Plan was last updated in 1993. Solway residents felt it was important to review the Comprehensive Plan in response to a number of concerns that surfaced in the Township regarding a proposed industrial landfill facility, potential gravel pit expansions, and siting of cellular towers near areas with a more rural residential character. In order to prevent any undesired development that would be inconsistent with the updated comprehensive plan the Township requested St. Louis County to institute a land use permit moratorium for Solway Township. This request was granted and a moratorium was in effect from February 15th 2000 to November 15th 2000. This moratorium covered the following land uses: All rezoning from the official Solway Zoning Map as adopted by the County Board on January 29, 1996; all conditional use permits for communication towers such as cellular towers; all conditional use and performance standard salvage yard permits; all conditional use and performance standard borrow pit permits; and all performance standard and conditional use solid waste permits.

The planning process was guided by the Solway Township Comprehensive Planning Committee made up of Solway Township residents. This committee met for over one year and assisted in formulating the community survey questions, reviewed the survey responses, and developed the overall planning goals and policies, contained in this document, based on the survey responses and lively discussion among the Planning Committee members. The draft plan was presented to the public on November 21, 2000 at Solway Town Hall. Over one hundred Solway residents attended the open house.

Purpose of the Plan

A community is shaped over time by its citizens and by many different governing bodies. As a community develops, its housing, transportation, land use, commerce, and industry needs change. Development projects need to be coordinated to reduce undesirable land uses, poor traffic circulation, inadequate public facilities, and to avoid development in unsuitable areas. Proper planning is essential to prevent inefficient operation of the community and subsequent burdens on the community's tax base and should reflect the aims, goals, and ambitions of the citizens of Solway Township.

A Comprehensive Plan is a document that defines the current and future land uses of a community and guides growth and development within the community. A comprehensive plan has two main parts. The first part includes background data that describes a community's resources, features, and analyses trends such as population growth, land use, and transportation needs. The second element is a policy element that sets forth the community's long-range goals and the strategies by which to achieve them. A comprehensive plan gives a community the factual basis and support for zoning ordinances and other land use decisions within the community.

By itself, the Plan can do nothing to affect local legislation. It cannot enforce the policies and concepts that it describes. However, there are three ordinances authorized by the state of Minnesota enabling legislation that regulate the development and use of land. These ordinances are the tools used to implement the land use component of the

Comprehensive Plan. They are the Zoning Ordinance, the Subdivision Ordinance, and the Official Map. St. Louis County administers and enforces these land use regulations.

The Zoning Ordinance, consisting of text and a map, and regulates groups of permitted uses that vary from district to district. The text contains the regulations, and the map shows the location of the land use zones or districts within the boundaries of the community.

The Subdivision Ordinance establishes regulations for the division and development of land. Standards are set for lot and street design, drainage, park dedication, required improvements and similar concerns. The subdivision of land must be coordinated with the Zoning Ordinance and the Official Map.

The Official Map is defined as a map that displays the public improvement plan adopted by the governing body. The Official Map is a legal document that identifies rights-of-way for future streets and utility corridors, and it may be based on actual surveys. When lands are subdivided and developed, the rights-of-way established on the Official Map must be recognized and respected.

This Comprehensive Plan uses direct input from the residents of Solway and the Township planning committee. Its purpose is to ensure a high standard of living and accommodating rational growth and expansion. It also provides a framework for the determination of public investment needs and priorities and will help assure the adequate and orderly development of a balanced mixture of land uses at reasonable public and private costs.

Geography and History of Solway

(Adapted from the 1993 Solway Comprehensive Plan)

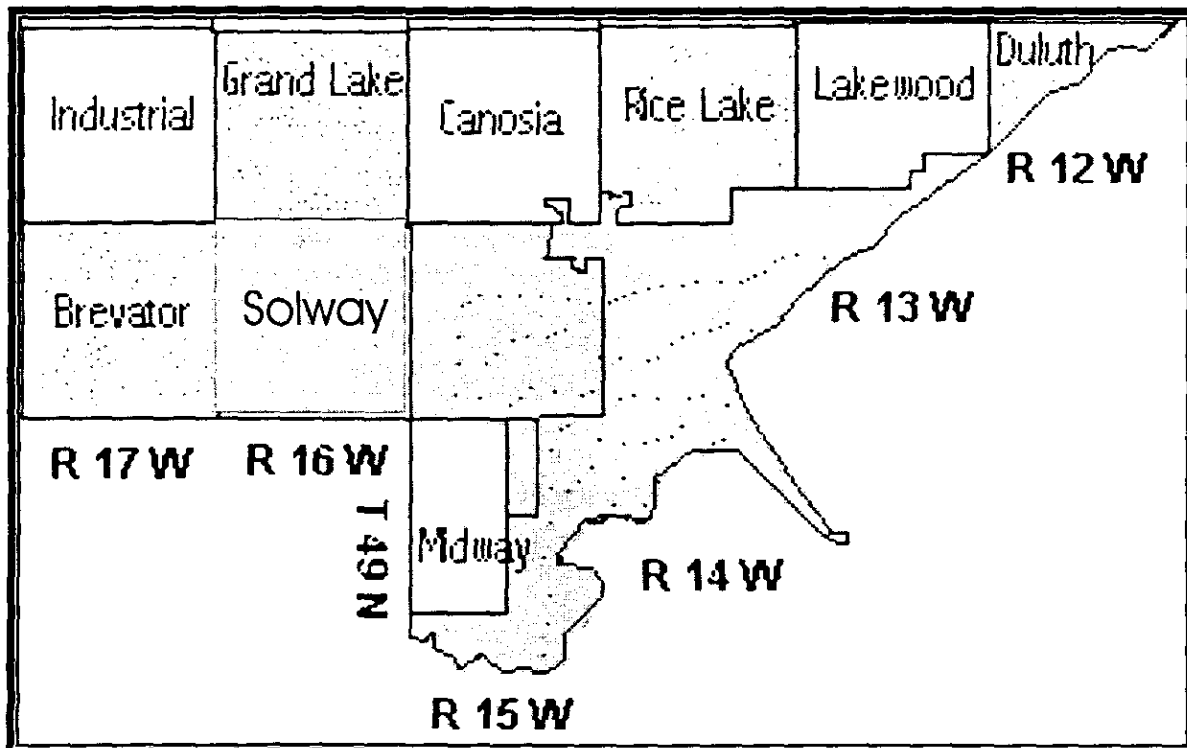
The development of the Duluth Missabe and Northern rail line (now Duluth Missabe and Iron Range) in 1892-93 spurred the early growth and development of Solway Township. The lack of roads was the main reason Solway residents petitioned for the creation of Solway Township. In 1900, Solway's population was 115 people. That number increased rapidly, nearly tripling (332) by 1910. During this period, construction of the Duluth, Winnipeg, and Pacific (DWP) rail line started through Solway. In the early days, the railroads provided an important means for local farmers to ship their products to Duluth.

In 1918, a forest fire that burned much of the area surrounding Duluth and Cloquet also burned Solway. That fire burned nearly everything including the first school house, which was also functioned as the Town Hall office. Following the 1918 fire, Solway residents were busy rebuilding. In 1919, Solway boasted four schoolhouses, the enrollment in that year was 104 students. The 1920 census showed a population increase to 522 residents. The current Town Hall was opened in 1921. Ever since its completion, it has provided the focal point for community activities.

In 1938, Minnesota Power and Light and the Rural Electric Association brought electricity to the Township. US Highway 2 was built through Solway in 1939. This improved access to Duluth and Cloquet led to a rapid growth of Solway after 1950 with an influx of people who worked in Duluth and Cloquet. In 1957 further improvements were made to US Highway 2 making Solway a more attractive area for suburban living. The 1960 census showed a 32 percent increase in population over 1950. That growth rate intensified even more in the 1960's with a growth of nearly 40 percent. The development of Solway in the 1970's, 80's, and 90's has continued the trend toward residential settlement.

Geographic Location and Setting

Solway Township is located in the southern portion of St. Louis County, adjacent to Hermantown and Proctor and west of the city of Duluth.



Solway State of the Township Survey

A Comprehensive Plan needs to take into account the input of the residents whose lives it will affect. The Solway State of the Township Survey was sent out to residents in the first part of 2000 in order to determine the citizens' concerns and issues that need to be planned for in the future. Three hundred eighteen (318) of the 741 surveys that were sent out were returned, which is a very good return rate of 43 percent. It contained demographic questions as well as opinion questions about the local services and future development of Solway. A copy of the survey and a summary of the results are included in Appendix A. Survey results will be used where appropriate in this plan to describe the community's feelings about a variety of issues.

Community Vision

In the survey, residents were asked to describe their vision of Solway Township 10 years from now. The Solway Township Comprehensive Planning Steering Committee used these comments to develop a vision statement that will serve as an overall guiding principle for reaching the goals set forth by the comprehensive plan. The responses regarding the resident's community vision are included in Appendix A.

The overwhelming response from its residents is that Solway should retain the same quiet, rural character it currently has. Solways residents in general do not favor a large increase in residential or commercial development. Although the people of Solway recognize that there will be ongoing pressure for new residential development, they believe the rate of development should be slowed down as much as possible through large lot zoning. Other themes include maintaining an affordable tax rate and upkeep of the Township's roadway infrastructure.

The overall character of a community is often a reflection of the quality of life offered by the township. Considering this, it is important to recognize that a community's character plays a significant role in its future development. In order to define the character of Solway Township, the Solway Township Steering Committee created a vision statement based on a review of the survey results which helps to capture the essence of the community, and describes what is important to the residents of Solway Township.

VISION STATEMENT

"Solway Township with its rich rural lifestyle strives to provide a well balanced, secure, and enjoyable living environment for citizens of all ages. As a friendly, quiet, family oriented community, the citizens of the township appreciate and respect the needs of their neighbors. The Township will work together with its residents to maintain responsible development while making sure to preserve the existing lifestyles of its residents. Proactive decision-making and codes that protect and maintain a safe and healthy environment will maintain the existing quality of life."

Overall Comprehensive Plan Concepts

OVERALL COMPREHENSIVE PLAN CONCEPTS

Based on the information presented to the Comprehensive Planning Steering Committee, careful consideration was made in the development of the goals. The following goals were developed to guide future developments and community services in Solway Township. An implementation strategy in the form of policies was developed to provide a way for the Township to achieve these goals.

Natural Resources:

- Goal 1:** Develop land to take advantage of and respect the physical limitations of natural resources that a quality environment can be enhanced and preserved. (See Map B, limits to development.)
- Goal 2:** Integrate recreational uses with the preservation and maintenance of natural resources and environmental features wherever possible.
- Goal 3:** Encourage the sound utilization of economically valuable natural resources.
- Goal 4:** Encourage landowners to preserve the aesthetic quality and natural topographical features specific to Solway Township.

Housing:

- Goal 1:** All residents of Solway Township must have safe and sanitary shelter.
- Goal 2:** Encourage housing development that accommodates the lifestyles, ages, and income levels of existing and future residents.
- Goal 3:** Encourage housing development in accordance with the future land use map and the land use chapter of this plan.
- Goal 4:** Research adopting State Building Code.

Commercial and Economic Development:

- Goal 1:** Maintain current commercial areas and discourage expansion of commercially zoned areas as indicated by the survey results.
- Goal 2:** Allow "cottage industries" and home businesses as permitted by the St. Louis County zoning regulations
- Goal 3:** Provide fair and enforceable regulations for industrial and commercial development.
- Goal 4:** Ensure protection of the health, safety, and welfare of township citizens when reviewing requests for commercial and industrial development.
- Goal 5:** Allow commercial and industrial development in accordance with the land use chapter of this plan.

Public Services and Facilities:

- Goal 1:** Preserve the Township form of government.
- Goal 2:** Provide adequate governmental services to satisfy the needs of Solway in anticipation of future demands.
- Goal 3:** Work with Independent School District 704 on the redevelopment of the old Munger School site as a recreation area.

Transportation:

- Goal 1:** Establish and maintain a transportation system capable of providing safe, efficient, and economical travel patterns within and through the township.
- Goal 2:** Protect the major capital investment of the road network within the township.
- Goal 3:** Promote methods of increasing transportation energy efficiency.
- Goal 4:** Coordinate new road construction and maintenance with traffic circulation, the need for developable land, and available financial resources.
- Goal 5:** The township should seek to minimize the consumption of land for utility right of ways.

Land Use:

- Goal 1:** Ensure that land use decisions made at the county level are made with the greatest possible amount of township input and with the opportunity for public participation.
- Goal 2:** Maintain and enhance the rural character of Solway Township and Promote low-density residential development.
- Goal 3:** Limit commercial development.
- Goal 4:** Reduce potential conflicts arising between gravel pit operators and residents.
- Goal 5:** Provide a full range of recreational opportunities for all Township residents to enjoy, on an equal basis, through the expansion of existing and the development of new recreational options.
- Goal 6:** Allow limited levels of light industrial and rural industrial uses where existing zoning and transportation infrastructure allows.
- Goal 7:** Support the continuation of the existing character of agricultural operations and reduce the potential for conflict with residential uses.
- Goal 8:** Support the continuation of forest management to ensure the survival of woodlands for future generations.
- Goal 9:** Keep the number and impact of landfills to a minimum to protect the health, safety, and welfare of Solway Township's residents.
- Goal 10:** Keep the number and visual impact of cell towers to a minimum.
- Goal 11:** Keep the visual impact of utility infrastructure to a minimum.

Natural Resources

NATURAL RESOURCES

Introduction

In order to guide future development of Solway Township, it is necessary to examine the natural features of the area. Natural features such as forests, streams and wetlands contribute to the quality of life that has attracted many residents to Solway Township. However, these same features may pose limitations to the types of development that are desirable in certain areas. Taking these natural characteristics into account will help ensure protection of the natural environment and maintain the high level of quality of life in Solway Township.

Topography

Solway Township has a gently rolling landscape with several well-defined hills and ridges. These geographic features are mainly recessional moraine deposits and glacial till, are a result of recent glacial activity within the last 10,000 to 12,000 years. Elevations range from 1,280 to 1,500 feet above sea level, with the lowest elevations in the southern part of the township.

Vegetation

Large portions of the township are forest-covered, mostly with a deciduous growth composed of birch, poplar, alder, and ash. Other portions of the township include substantial stands of maple, white oak, and various conifers. This forest cover is perhaps Solway's greatest asset, since it not only lends the township a "woody" atmosphere, but naturally retains moisture and minimizes the effects of severe run-off due to storms and spring thaws. An important function of stream vegetation is shade, which prevents extreme changes in water temperature. This is beneficial for the trout population. Several regular and intermittent streams, which have their headwaters within the township, owe their water quality to forest cover.



Surface Water

Solway Township is within the drainage basin of the St. Louis River. Therefore, all drainage courses are tributaries to the St. Louis River. Among the streams that flow through or out of Solway are Pine River, Rocky Run, Elm Creek, and Hay Creek. Pine River, which originates from the north at Pike Lake, joins the St. Louis River in Brevator Township after draining most of Central and Western Solway. Rocky Run is the main drainage course for a large area of eastern Solway and western Hermantown and flows into the Midway River near the St. Louis-Carlton County border in Midway Township. Hay and Elm Creek, in the south central portion of Solway, also join with the Midway River.

Lakes within the Township include Twin, Horseshoe, Birchshore, Sanders, and a small portion of Baby Grand.

Wetlands

Approximately one third of Solway Township is covered with wetlands (See Map A, land cover, on the following page). Map A, Solway Township Land Cover, indicates that approximately 18 percent of Solway Township is wetland. The Land Cover map and chart used a different data source than the wetland map developed by St. Louis County which is based on the National Wetlands Inventory, which uses soil types, presence of certain types of vegetation, and presence of water to define wetlands. Some land cover classified as forest likely falls under the wetland classifications using soil maps and vegetation classifications. The St. Louis County wetland map is used as the starting point for determining whether a location has any wetland concerns. A detailed on the ground and historical analyses of the site may result in the revision of the wetland boundaries established through photographic interpretation.

These wetlands provide important environmental functions such as wildlife habitat, water filtration, and flood protection. The flooding of septic systems constructed on low lying areas represents a serious health hazard to area residents who rely upon private wells for drinking water. Development in wetland areas is, therefore, not desirable and should be discouraged. Wetland protection in Solway Township is regulated by St. Louis County as described in their Comprehensive Wetland Protection and Management Plan (St. Louis County, March 9, 1999).

Soils

Three basic soil types are found in Solway Township. One is peat, which can be found scattered throughout Solway. Peat consists of thick layers of decomposing aquatic vegetation and is found in low laying areas with poor drainage. The other two soil types, found in Solway, are loam and fine sandy loam. Both were formed by glacial activity, and consist of sand, gravel, and coarser rock materials.

Soils ability to support onsite septic systems is important in the planning process. Septic systems rely upon the soil's ability to absorb and filter wastewater. The majority of soils in Solway have severe problems with permeability and/or seasonably high water tables.

This presents severe limitations to build dwellings with basements in lower areas and a high potential for frost action everywhere. These soil conditions do not totally restrict future development in these areas, but must be seriously considered as an important element in land use control. Map B shows generalized areas of soils with development restrictions in Solway Township.

Map A: Solway Township Land Use / Land Cover



Legend

- Coniferous forest
- Cultivated land
- Deciduous forest
- Farmsteads and rural residences
- Forest cut-overs
- Grassland
- Gravel pits and open mines
- Mixedwood forest
- Open water
- Shrubby grassland
- Utilities
- Wetlands - bogs
- Wetlands - marsh and fens

Land Cover data extracted from 1996
Manitoba Remote Sensing Center Dataset

| Land Cover Classification | Total Acres | Percent Cover |
|---------------------------------|-------------|---------------|
| Coniferous forest | 541.9360 | 2.38 |
| Cultivated land | 72.4790 | 0.32 |
| Deciduous forest | 2248.7850 | 9.89 |
| Farmsteads and rural residences | 123.8500 | 0.54 |
| Forest cut-overs | 688.6390 | 3.03 |
| Grassland | 4694.2890 | 20.63 |
| Gravel pits and open mines | 613.4450 | 2.70 |
| Mixedwood forest | 2594.9960 | 11.41 |
| Open water | 267.7680 | 1.18 |
| Other rural developments | 288.2870 | 1.27 |
| Shrubby grassland | 6606.0990 | 29.04 |
| Wetlands - bogs | 2802.6440 | 12.32 |
| Wetlands - marsh and fens | 1205.9620 | 5.30 |



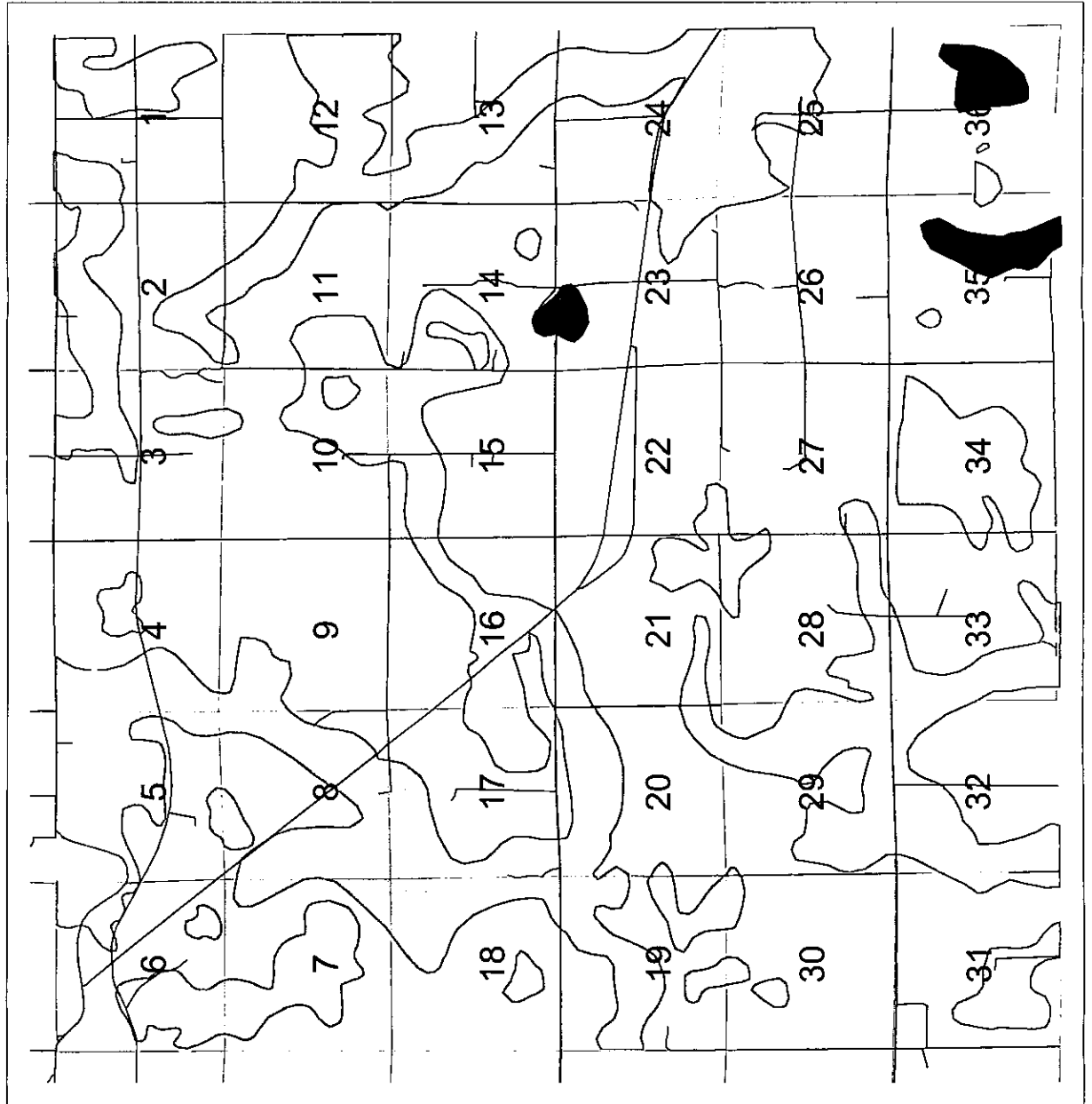
Map B: Solway Township Development Constraints

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Legend

- Steep Sloped
- Unsuitable



All Solway residents rely on private wells for their drinking water. Prevention of groundwater contamination is therefore of great concern. Placement and proper maintenance of septic systems are important elements of maintaining a safe drinking water supply. Soil conditions and potential impacts on individual wells should be an important consideration when siting new development and their septic systems. Map B gives an indication of areas with soil limitations for development.

Slope

Solway Township has some hills with problematic slopes for development. These areas with moderate to excessive slope are generalized on Map B. Erosion due to construction on or clearing of slopes can destroy the value of the property on which it occurs; it also can degrade water quality and hydrology-dependent ecosystems. Individual site development on steeply sloped areas can drive up the cost of provision of public services. Visual impacts of developments on slopes are a concern as well and may affect the appearance of Solway's landscape. These impacts should be carefully evaluated for proposed development on slopes.

Natural Resources Goals

Goal 1: Develop land to take advantage of and respect the physical limitations of natural resources that a quality environment can be enhanced and preserved. (See Map B, limits to development.)

Policy: Discourage development in areas subject to flooding or areas that would contribute to flooding, erosion, or sedimentation.

Policy: Preserve the functional integrity of all natural drainage courses for storm water runoff.

Policy: Maintain the township's water quality to insure its continued use for domestic water supply, recreation, and aquatic habitat.

Policy: Preserve all wetland areas, as these are vital to the preservation of hydrologic basins and fish and wildlife habitat, per the guidelines of the current St. Louis County Comprehensive Wetland Protection and Management Plan.

Policy: Discourage development on steep slopes where erosion damage and destruction of scenic qualities could occur.

Policy: Govern lot sizes by the capacity of soils to handle on-site domestic waste systems. St. Louis County Zoning Ordinances define the guidelines for system siting.

Goal 2: Integrate recreational uses with the preservation and maintenance of natural resources and environmental features wherever possible.

Policy: Promote reclamation of all abandoned gravel pits to conditions conducive to the goals defined in this plan and the St. Louis County Zoning Ordinance.

Policy: Promote multiple use of forestlands.

Goal 3: Encourage the sound utilization of economically valuable natural resources.

- Policy: Ensure compliance with the performance standards set forth by the St. Louis County Zoning Ordinance.
- Policy: Ensure compliance of all harvesting and land disturbing activities with state, federal and local regulations and performance standards.
- Policy: Encourage all development to be sensitive to wildlife habitat.
- Policy: Encourage the development of forest management plans for private land holdings.
- Policy: Explore opportunities to pursue funding for acquisition of land in selective cases or for rehabilitation or improvement of land to preserve wildlife and wetlands, for park use or for protection from undesirable development.

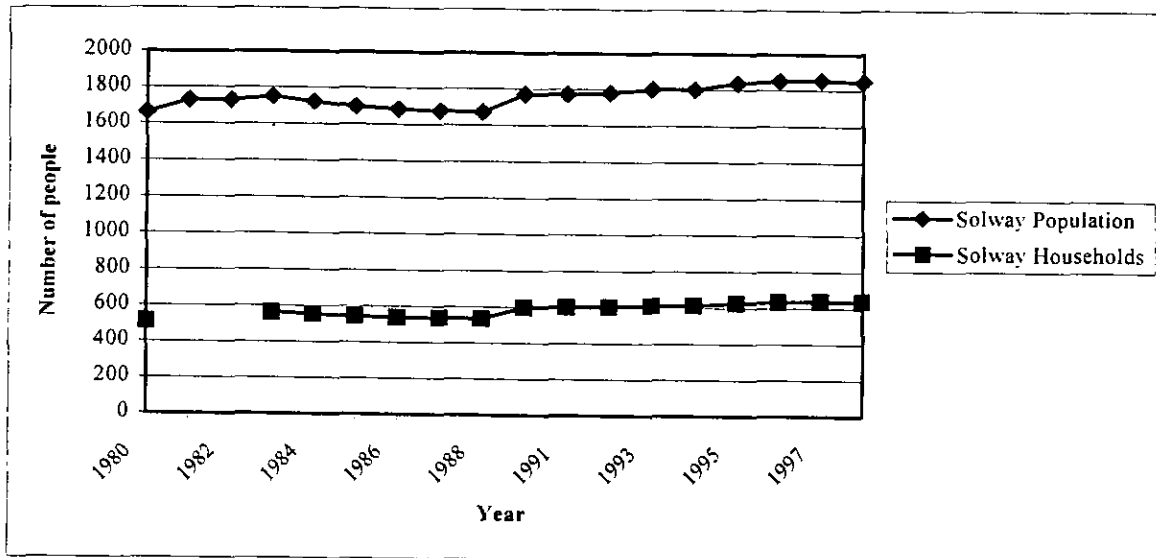
Goal 4: Encourage landowners to preserve the aesthetic quality and natural topographical features specific to Solway Township.

Population Characteristics

POPULATION CHARACTERISTICS

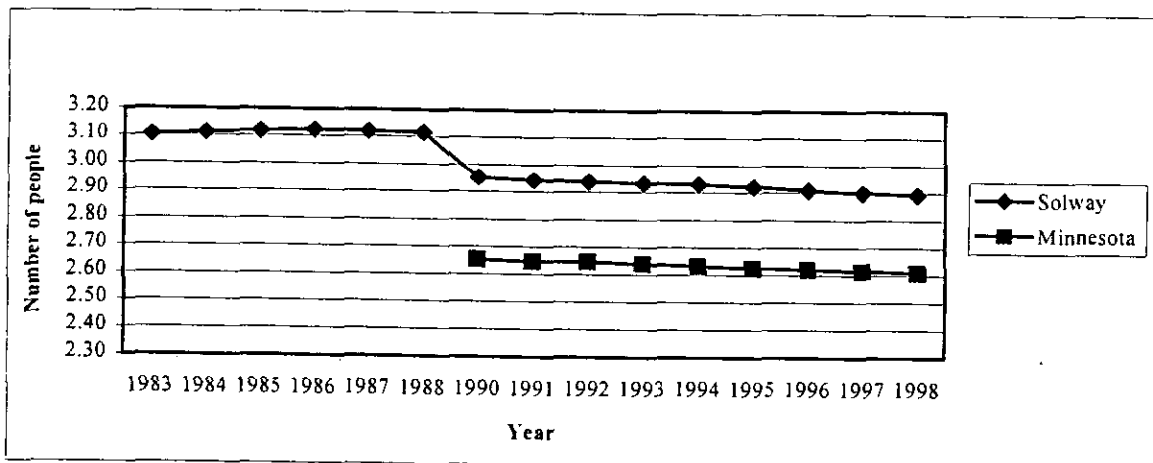
Solway Township experienced some growth since 1980 in both total population and number of households (See Figure 1). Based on 1998 estimates from the Minnesota State Demographer's Office, the population has increased from 1,663 in 1980 to 1,847 in 1998. This is an increase of 184 people, or 11.1 percent. The number of households has also increased, going from 513 in 1980 to 638 in 1998, which is an increase of 125, or 24.3 percent. The number of people per household has gone down significantly since 1980. It has dropped from 3.24 to 2.89, or 10.9 percent (See Figure 2).

Figure 1: Population and Household Estimates



Source: State Demographer

Figure 2: Average Household Size

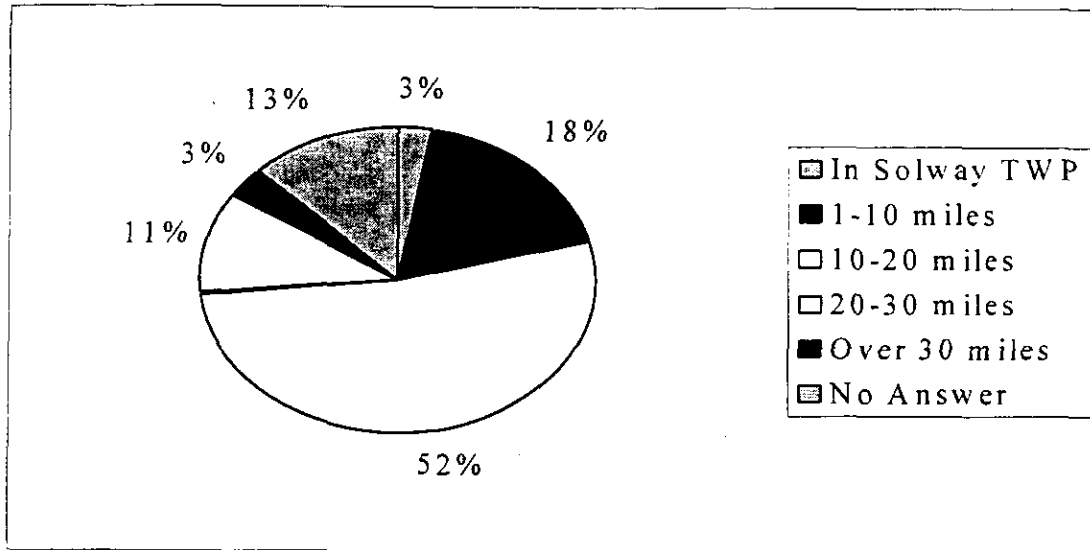


Source: State Demographer

Figure 3 shows the average distance from the household to the workplace of Solway residents. The data is taken from the Solway State of the Township Survey. Solway's

role in the Duluth-Superior Metropolitan Area could be best described as a bedroom community, meaning that most of the residents commute to other communities to work.

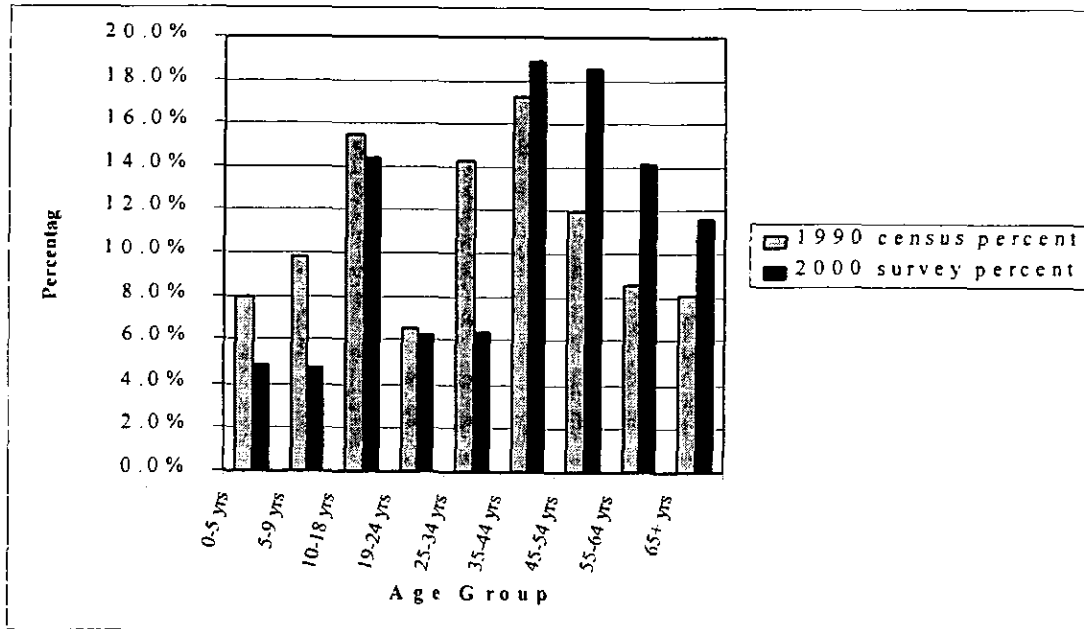
Figure 3: Average Travel Distance from Household to Work



Source: Solway State of the Township Survey

The composition of Solway's population by age is shown in Figure 4. The 1990 figures are taken from the 1990 US Census. The 2000 figures are based on data from the Solway State of the Township Survey as the best available data at the time of plan development. The survey results indicate that the population is aging.

Figure 4: Comparative Age Groups for Solway Township

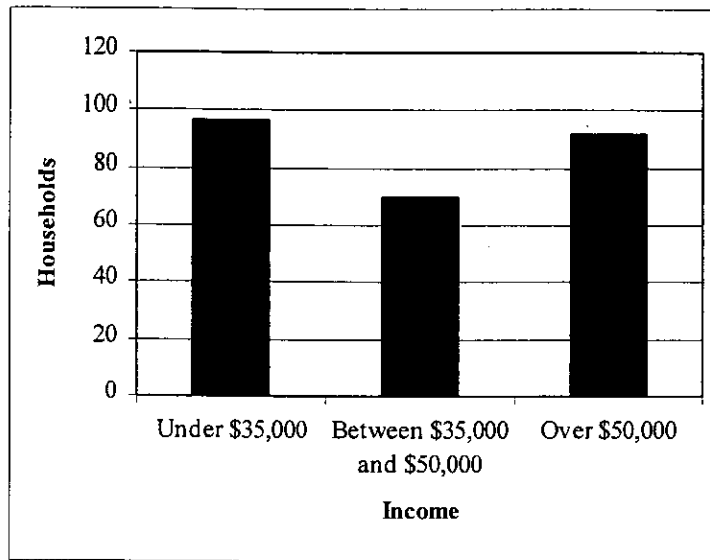


Source: Survey and Census

This trend is also reflected in the response to the question "How many years have you lived in Solway Township?". Over 50 percent of the respondents lived 30 years or more in Solway, 24.5 percent lived between 11 and 30 year in Solway.

According to the Solway State of the Township Survey, the household incomes in Solway are spread out rather evenly. As shown in Figure 5, nearly 100 households reported having an annual household income of under \$35,000. Seventy reported having an annual income of between \$35,000 and \$50,000. This category has a direct correlation to the Fiscal Year 2000 median household income in St. Louis County, which is \$46,200 (*source: U.S. Dept. of Housing and Urban Development*). A little over 90 households reported making over \$50,000 per year.

Figure 5: Annual Household Income Survey Results



Source: Solway State of the Township Survey

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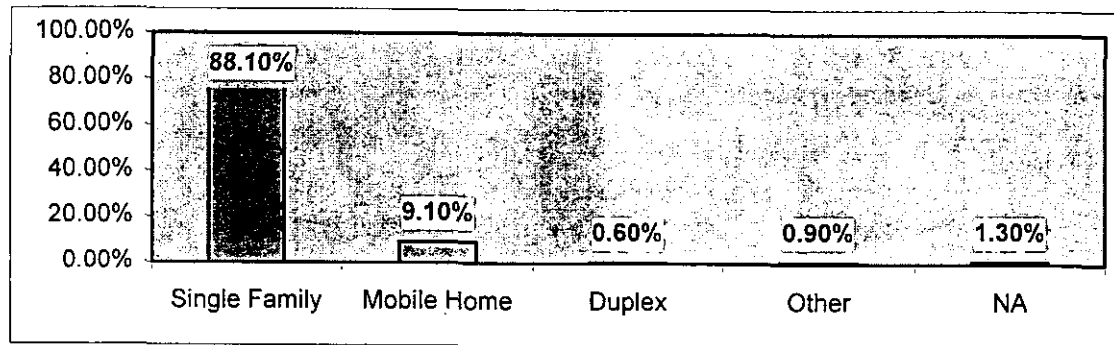
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HOUSING

According to the U.S Census, Solway has a total of 635 housing units of which 600 are occupied and 35 are vacant. Of the 600 occupied dwellings, 570 were owner-occupied and 30 were renter-occupied. Solway's housing stock consists predominantly of single family, owner-occupied homes (See Figure 6). This is in keeping with the rural, low-density development, nature of Solway Township. New development in Solway is dominated by single family homes with an average growth of 12 new homes a year between 1990 and 1999 (*St. Louis County Health Department*).

Survey respondents do not indicate a strong support for actively encouraging new housing in Solway. Thirty one percent are neutral and 28 percent disagree with the statement that new housing should be encouraged. Thirty seven percent of the respondents agreed or strongly agreed.

Figure 6: Housing Type



Source: 1990 Census

The majority of the survey respondents indicate the need for development of single family homes and senior housing. Mobile homes and family rental are seen as less needed by the survey respondents.

The overall number of housing units increased by 88 between 1980 and 1990 or a 16.1 percent increase during this period. Based on septic system permit data from the St. Louis Health Department, the overall number of housing units increased by 125 units or a 19.7 percent increase between 1990 and August of 2000. Even though there has been an increase in the growth rate, Solway Township is still growing at a slower pace than surrounding townships in the area (See Figure 7)

Figure 7: Number of Septic Permits¹ by Township: 1990-1999

| TOWNSHIP NAME | YEAR | | | | | | | |
|------------------|------|------|------|------|------|------|-------------|---------------|
| | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 - 1998 | 1999 -Present |
| Canosia | 12 | 15 | 36 | 20 | 17 | 14 | 46 | 24 |
| Lakewood | N/A | 24 | 18 | 26 | 13 | 13 | 36 | 32 |
| Rice Lake | N/A | 17 | 23 | 20 | 17 | 13 | 70 | 26 |
| Solway | 8 | 3 | 16 | 12 | 10 | 13 | 37 | 26 |

Source: St. Louis County Health Department

Figure 8 shows the age of the housing build in Solway. This data is important in recognizing future housing needs in the community. According to the 1990 U.S. Census, Solway's median construction date for a house is 1970. The average life span of a house is between 40 and 50 years without significant annual maintenance. The majority of the housing in Solway is still within these limits, and therefore major housing rehabilitation is not likely to be needed in the near future for the majority of the housing units. Sixty eight percent of the survey respondents agree that overall housing and property appearances are good.

Figure 8: Age of Housing Structures

| Year Built | Number of units | % of Total |
|----------------------------------|-----------------|------------|
| 1989-1990 | 21 | 3.3% |
| 1985-1988 | 33 | 5.2% |
| 1980-1984 | 49 | 7.7% |
| 1970-1979 | 220 | 34.6% |
| 1960-1969 | 107 | 16.9% |
| 1950-1959 | 53 | 8.4% |
| 1940-1949 | 40 | 6.3% |
| Before 1940 | 112 | 17.6% |
| Totals | 635 | 100% |
| Median year structure built 1970 | | |

Source: 1990 census

¹ New septic system permits are used as a surrogate for new building permits. Data for the periods 1996 – 1998 and 1999 –present were combined by the St. Louis County Health Department.

Housing Goals

Goal 1: All residents of Solway Township must have safe and sanitary shelter.

Policy: Work with the county to ensure zoning and septic system permits are enforced.

Policy: Prevent rural blight by encouraging the upgrading or demolition of substandard or non-functional vacant structures.

Goal 2: Encourage housing development that accommodates the lifestyles, ages, and income levels of existing and future residents.

Goal 3: Encourage housing development in accordance with the future land use map and the land use chapter of this plan.

Goal 4: Research adopting State Building Code.

**Commercial and Economic
Development**

COMMERCIAL AND ECONOMIC DEVELOPMENT

Solway Township does not have a large amount of commercial or industrial development. Commercially zoned land accounts for approximately 120 acres of Solway Township and lies between US Highway 2 and Old US Highway 2. Highway 194 also offers an attractive location for businesses that benefit from good road access. There are a number of home businesses outside of the commercially zoned districts as allowed under the current zoning. These generally employ a very small number of people. The industrial development in Solway is limited to gravel extraction, processing, and shipping. Gravel pits use heavy machinery and produce some noise, dust, and traffic. Because of this it is important to prevent any conflicts between gravel operations and more residential uses in Solway Township. These gravel pits supply a major portion of the material for construction in the Duluth-Superior area.



According to the State of the Township Survey, the majority of residents are content with this low level of commercial development. Fifty percent of those surveyed disagreed or strongly disagreed that commercial areas should be established and developed. Only 28 percent agreed or strongly agreed that they should be established and developed. Eighteen percent were neutral. The results were similar for the question of whether or not industrial development should be encouraged. Fifty eight percent disagreed or strongly disagreed

that industrial areas should be established and developed. Only 21 percent agreed or strongly agreed that they should. Eighteen percent were neutral.

Commercial and Economic Development Goals

- Goal 1:** Maintain current commercial areas and discourage expansion of commercially zoned areas as indicated by the survey results.
- Goal 2:** Allow “cottage industries” and home businesses as permitted by the St. Louis County zoning regulations
- Goal 3:** Provide fair and enforceable regulations for industrial and commercial development.
- Goal 4:** Ensure protection of the health, safety, and welfare of township citizens when reviewing requests for commercial and industrial development.
- Goal 5:** Allow commercial and industrial development in accordance with the land use chapter of this plan.

Public Services and Facilities

PUBLIC SERVICES AND FACILITIES

Introduction

The predominant rural residential development in Solway mandates a large degree of self-sufficiency of its residents. That combined with the relatively small population and efficient form of government minimizes governmental costs. As Solway's population is likely to continue to grow some government services may need to be expanded, such as recreation facilities and road maintenance. It is important to ensure public services continue to be provided in an efficient manner, thereby minimizing governmental costs.

Township Government

The township administration is made up of a three-member Board of Supervisors an elected clerk and treasurer. Solway is classified as an urban township because of its proximity to Duluth, giving it powers nearly identical to those of a city of the fourth class. This gives the Town Board the power to act on its own initiative on certain issues without prior official approval of residents. The survey respondents, 80 percent, indicated to be strongly in favor of "maintaining the Township as the form of local government".

Road Maintenance

The Township owns and maintains 13.7 miles of road, of which 1/2 mile is paved. Township service to these roads includes snowplowing and snow fence installation, grading, right-of-way mowing, brushing, and other repair and maintenance.

Fire Protection

Solway has its own volunteer fire department. Solway pays for the purchase and upkeep of the department's equipment and facilities. A new fire hall has recently been constructed next to the Township Hall. The department is a member of the Lakehead Firefighters Mutual Aid Association. Fire departments within this association provide emergency assistance to each other. The department responds to an average of 50 calls per year of which approximately 30 percent are fire and 70 percent are medically related emergencies. The majority of the residents are satisfied with the fire protection services offered, according to the survey. Ambulance service is provided from Duluth and Cloquet. The response times are sufficient and there is currently no need for additional ambulance services in Solway Township.

Law Enforcement

The Township relies on the St. Louis County Sheriff's department for law enforcement. The majority of the survey respondents indicate that they are satisfied with the law enforcement services. A slow response time was one of the most common concerns voiced in the written comments.

Parks and Recreation

The ten acres of town land adjacent to the Town Hall are being used for a variety of recreational opportunities for Solway residents. The property has a soccer field, a play ground, and basketball courts. In the winter an ice rink is created by flooding the basketball courts. A picnic area with pavilion has recently been added to the recreational facilities on the Township property. The development of the pavilion was a joint effort between the Boy Scouts and Solway Township.

At the old Munger School site Solway has identified an opportunity to develop additional sports fields and a running track. The idea of developing sports facilities on this site is actively supported by the school district. After development of the facilities, ownership may be transferred from Independent School District 704 to Solway Township.

Town Hall

As a service to the community, and a means of reducing overhead costs, the Town Hall is made available for a fee for a variety of social events. Once a year, each Township family is given the opportunity to use the facility for free. The Hall is in considerable demand due to its central location within the Township and a lack of other suitable facilities for gatherings elsewhere in the area,

Cemetery

The Township provides and maintains a small two acre cemetery on Maple Grove Road. Routine maintenance consists of mowing and seeding. Burial sites are free for any deceased Solway residents.

St. Louis County Services

Solway Township relies on St. Louis County for a number of services. These services offer substantial economies of scale and/or require special skills or expertise, major capital investment, special technology and consistent application over a large area. Examples of services provided by the County include: County programs of health and welfare, law enforcement, transportation, and planning and zoning. About half of Solway's property taxes go to St. Louis County to support such programs.

Approximately 40 percent of the survey respondents indicated they were neutral to the statement that "Solway Township should finance the enforcement of its own zoning and planning". Approximately 30 percent agreed or strongly agreed. This may indicate the need for future discussion on the desirability of Solway Township doing its own planning and zoning.

Public Services and Facilities Goals

Goal 1: **Preserve the Township form of government.**

Goal 2: **Provide adequate governmental services to satisfy the needs of Solway in anticipation of future demands.**

Policy: *Promote construction and/or maintenance of public facilities where and when needed in the most efficient and effective manner.*

Policy: *Actively pursue funding opportunities to improve governmental services in Solway Township*

Policy: *Monitor the effectiveness of law enforcement in the Township and address needs as they arise.*

Policy: *Develop long-range township financial plans to obtain a more efficient use of total township revenues for capital improvements and operating expenses.*

Policy: *Implement Solway's Comprehensive Land Use Plan using the full capabilities of the Township including, if necessary, reorganization of governmental services and structures.*

Policy: *Expand recreational facilities as desired by residents.*

Goal 3: **Work with Independent School District 704 on the redevelopment of the old Munger School site as a recreation area.**

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Transportation

TRANSPORTATION

Introduction

The Transportation Element of the Solway Comprehensive Plan is designed to analyze the problems currently facing the road network and identify a course of action to ensure a safe and effective transportation network now and into the future. Roadways in Solway should provide safe and economical movement of people through and within the Township while minimizing any negative impacts on citizens and the natural environment. A proactive approach from the township board to maintain the standards outlined in this plan will guarantee the integrity of Solway's transportation system for years to come.



U.S. Highway 2 is the major thoroughfare in Solway Township, carrying traffic to nearby urban centers (Proctor, Duluth, Superior) and into the Iron Range.

Data Collection

Data on Solway roads was collected through surveying techniques, on-site inspections, and archives at the Minnesota Department of Transportation (MNDOT) and St. Louis County. Multiple meetings with the Comprehensive Plan Committee and the Township public meeting ensured that all important issues were addressed during the planning process. By analyzing the gathered data, answers were formulated for questions such as:

- ★ How has traffic changed and how will it continue to grow?
- ★ Which roads are in the greatest need of repair?
- ★ Where is safety a concern on the current road network?
- ★ What policies are needed to guide the future of the road network?

Data received from MNDOT included jurisdictional information (who is in charge of maintaining the roadway), roadway functional classifications, and average daily traffic counts. Jurisdiction information is an important component that allows us to visualize who maintains the roads in Solway Township, and how many miles are they responsible for. Functionally classed roads in the Township are eligible for greater funding sources as they have been identified as a major or important corridor through the area. These classifications are important to examine as non-classed roads are generally the responsibility of the township when it comes to maintenance or roadway improvements. Finally, average daily traffic (ADT) counts allow us the opportunity to see changes in traffic over time. Historical ADT data was compared to recent counts to show where traffic has increased or decreased.

The St. Louis County Sheriff's office supplied accident data over the past five years for our analysis. By looking at accident location, we can see areas where multiple accidents are occurring and possibly uncover the reasons for these accidents (i.e. road condition, speed limits, vehicle/rail intersections, etc.).

Figure 9: Breakdown of Road Mileage by Jurisdiction

| Type | Paved Mileage | Gravel Mileage | Total Mileage | % of Township's Roadways |
|----------------|---------------|----------------|---------------|--------------------------|
| Trunk Highway | 13.15 | 0 | 13.15 | 15.7% |
| CSAH | 16.19 | 2.58 | 18.77 | 22.5% |
| County Road | 10.04 | 26.28 | 36.32 | 43.4% |
| Township Road | .5 | 13.225 | 13.725 | 16.4% |
| Private Roads | 0.38 | 1.25 | 1.63 | 1.9% |
| Totals: | 40.56 | 43.335 | 83.595 | 100% |

Source: MIC Road Database, Solway Township

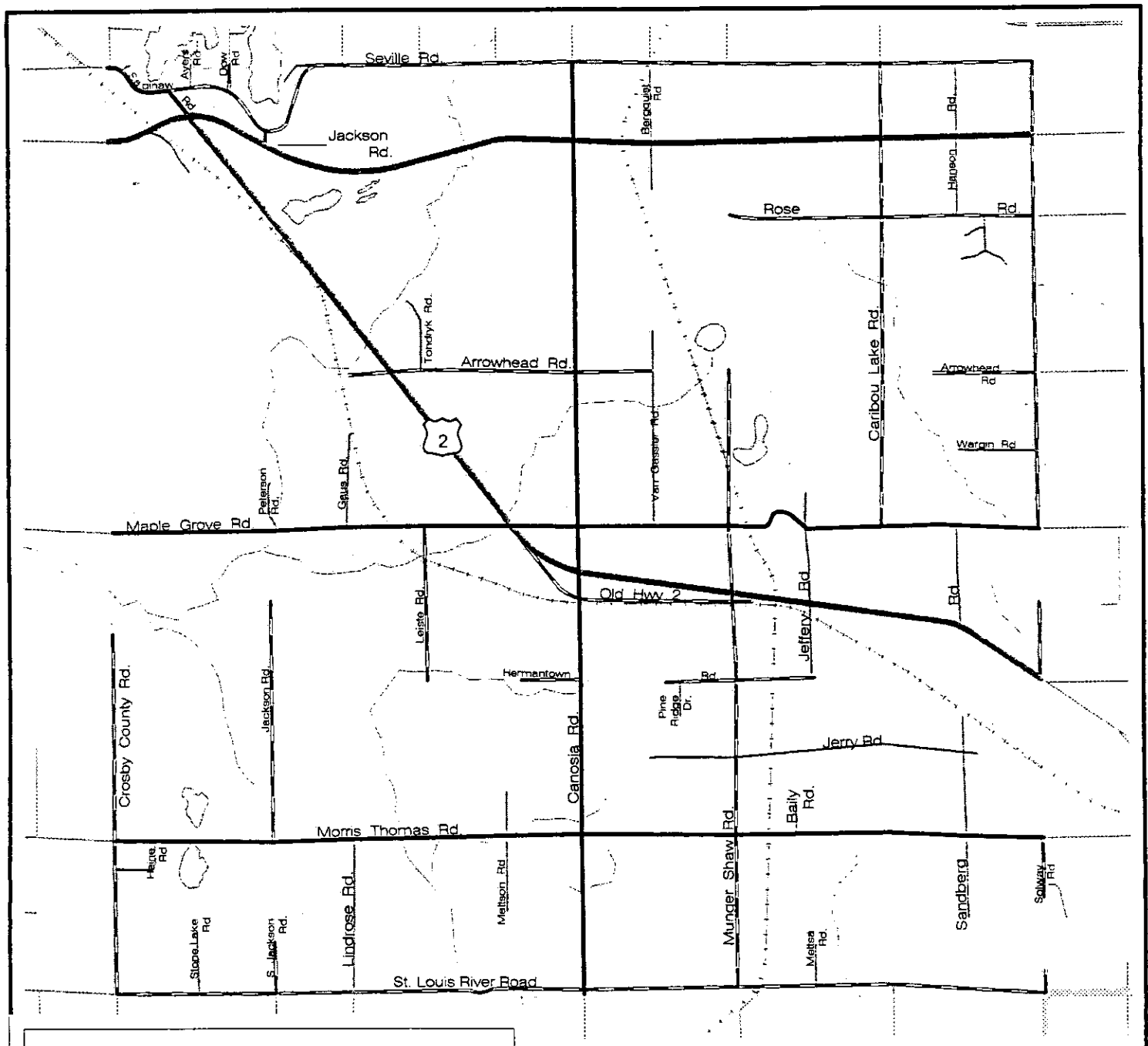
Road Jurisdictions

Of the approximately one hundred twenty-two miles of roadway in Solway Township, 19.1 miles (≈ 4 miles paved/ ≈ 15 miles gravel) or sixteen percent of all roads are required to be maintained by the Township. These roads are very important for the township to track as funds to pay for these repairs come from residential property taxes taken in by the Township. St. Louis County oversees the most roads in the township with approximately thirty-seven miles of roadway (≈ 12.5 miles paved/ ≈ 24.5 miles gravel) or thirty percent of Solway's roads. The upkeep on these roads are also funded through property taxes. County State Aid Highways (CSAH's) make up 34.2 miles of roadway in Solway Township (≈ 31.7 miles paved/ ≈ 2.6 miles gravel). These roadways are eligible for state and federal dollars for their upkeep. Finally, 31.9 miles (26.1%) of paved roadway are designated as Trunk Highways—also eligible for federal and state funds. Figure 9 contains a complete breakdown of mileage governed under the different jurisdictions. (See Map C)

Functional Classifications

Functional classification is the process by which roadways are grouped into classes, or systems, according to the character of service they are intended to provide. Basic to this process is the recognition that individual roads do not serve travel independently in any major way. Rather, most travel involves movement through a network of roads. It becomes necessary to determine how this roadway network can be characterized in a logical and efficient manner. Functional classification defines the role that each roadway plays in the flow of traffic within the roadway network. The system of functionally classifying roadways was developed by the Federal Highway Administration and is administered at the state level by the Minnesota Department of Transportation.

Map C: Road Jurisdictions in Solway Township



-  Trunk Highway (State)
-  County State Aid Highway
-  County Road
-  Township

Both Trunk Highways and County State Aid Highways are eligible for state and federal dollars for their upkeep. County and Township roads both rely on property tax dollars for their upkeep.

The Township's thoroughfare system is divided into five different classification fields based on general design and level of traffic usage. Map D on the following page illustrates these classifications applied to the roads. Definitions of the functional classes are listed below:

Principal Arterials: These roadways connect major interstate corridors, regions, urban places, and major traffic generators at a high level of service. They are characterized by high mobility with less access to adjacent land than other arterials. They carry the highest traffic volumes and are utilized for the longest trips. Generally, only trunk highways receive this functional classification. U. S. Trunk Highway 2 is the only Principal Arterial in Solway Township.

Minor Arterials: Minor Arterials are the main roads providing access into and out of the township. Their primary function is to provide a higher level of land access than principal arterials with minimum interference to through movements. Traffic volumes are usually over 3,000 ADT (average daily traffic) and widths are often greater than 36 feet. The only Minor Arterial in Solway is Highway 194 and it carries a speed limit of 55 m.p.h.

Major Collectors: These roads are used for intra-county travel and for funneling traffic from township (local) roads onto higher functionally classed roadways. This classification is given to corridors adjacent to important county traffic generators such as consolidated schools, shipping points, county parks, important mining and agricultural areas, etc. This type of roadway generally carries traffic volumes around 1,500 ADT, and has pavement widths between 28 to 40 feet. Speed limits on Major Collectors in Solway Township range from 40 m.p.h. (Morris Thomas Road) to 55 m.p.h. (Canoisa)

Minor Collectors: Functions similarly to the Major Collectors (distributing traffic to local roadways and travel destinations), but they do not offer the same ease of movement and carry less traffic. The only Minor Collector in the Township is Maple Grove Road. The speed limit on this road varies from the paved section (50 m.p.h.) to the gravel section (55 m.p.h.).

Local Roads: The local street system permits direct access to abutting lands and makes connections to higher functionally classed roadways. They offer the lowest level of mobility while attempting to foster a safe and pleasant environment for both the driver and pedestrian. Speed limits are generally set at 30 mph.

Map D: Functional Classifications of Roadways

Principal Arterial

Minor Arterial

Major Collector

Minor Collector

local

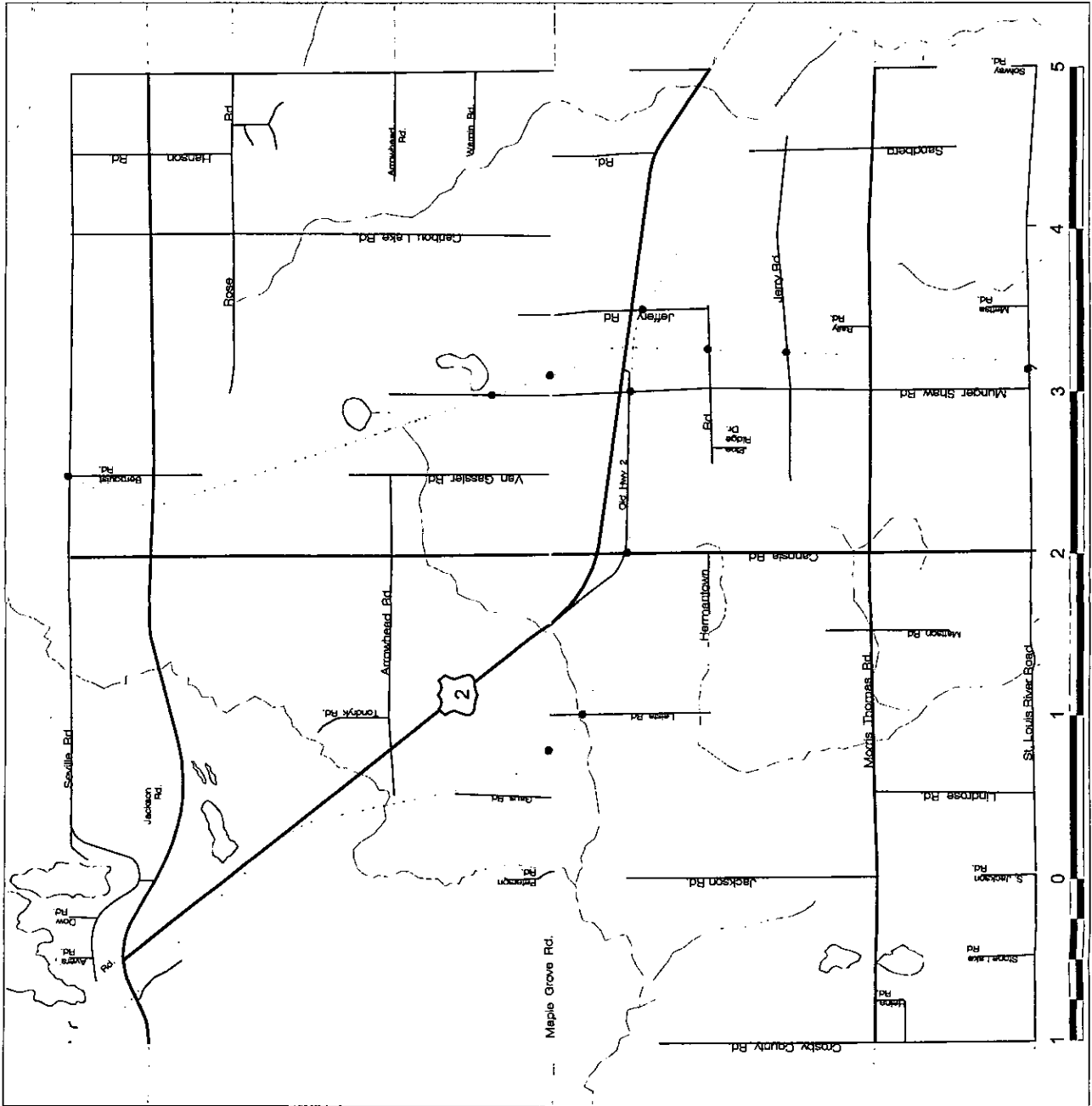
Mn rail83.shp

Vehicle/Rail intersections

Perennial streams
Intermittent streams
Lakes

Municipal boundary

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Road Conditions

The condition of roadways is a constant concern for all drivers. Uneven and bumpy surfaces create varying speeds in the stream of traffic and make for an uncomfortable ride. Ensuring that roads are in good condition and meet the criteria of their usage should be a top priority for Solway Township. Two methods were utilized to inventory the condition of the roads in the township—the first being questions asked in the Solway Township Survey, and the second being a road condition rating method developed by ARDC.

Solway Township Survey

The first method used to determine road conditions was to ask the citizens exactly how they felt about the roads that they have to drive. One hundred ninety-two of the three hundred ten survey respondents gave input regarding which “local roads [they felt] are in need of repair or upgrade.” Overwhelmingly, the two roads that were mentioned the most often were Maple Grove Road (42% of the responses) and Morris Thomas Road (35% of the responses). Both roads were described numerous times as being “very bumpy,” “bad,” and “in need of resurfacing.” Other roads identified by this question include St. Louis River Road, Caribou Lake Road, and Canosia Road; although none appeared as prominently as either Maple Grove or Morris Thomas.

A second question asked the citizens “What is the most important transportation issue in Solway Township?” Fifty-five of the one hundred thirteen respondents (nearly ½!) mentioned that “fixing the roads” was by far the most important transportation issue facing the township. Speeding and access to alternative modes of transportation were the next two most important issues with 17% and 12% respectively. Figure 10 to the right shows the complete breakdown of responses received in the survey.

Other questions asked in the survey were non-specific but were meant to gain the Township’s overall perception of their roadways. Questions included overall condition of local roads, condition of the road on which you live, and the needs for varying types of improvements. Results from these questions can be seen in Appendix B of this document. Responses mimicked the results seen in the two specific answer questions.

Figure 10:

| <i>What is the most Important Transportation Issue in Solway Township?</i> | |
|---|------------|
| ◦ Fix the roads | 49% |
| ◦ Speeding | 17% |
| ◦ Need more bike, bus, and Pedestrian options. | 12% |
| ◦ Too many Trucks | 8% |
| ◦ Better Plowing | 7% |
| ◦ Better Shoulders | 4% |
| ◦ Pave Dirt Roads | 3% |
| ◦ Safety | 3% |
| ◦ Other | 3% |
| *Percentages do not add up to 100% as more than one issue listed was mentioned in some responses. | |

ARDC Model

The Arrowhead Regional Development Commission's model rated the roadways on a standard scale. Roads were first divided into segments based on their intersection with other roadways. Each segment was then driven and assigned one of the following values:

- 1) smooth, freshly paved, almost flawless
- 2) slight deterioration or unevenness of roadway may be present; pavement may be starting to crack, but still a pretty smooth ride.
- 3) roadway is rougher than in 2; potholes may be present, but do not seriously effect the driving conditions.
- 4) roadway is rough and bumpy; potholes are present; a driver would need to slow down from the posted speed at times due to the poor road conditions
- 5) extensive potholes, and other large bumps, dips or unevenness; road cannot be driven at the posted speed due to its extremely poor condition.

Roads that had a gravel surface were excluded from the surface inventory as they are all on a different grading cycle. Any survey of gravel road surfaces would be quickly rendered invalid after the beginning of the grading season. Yearly routine maintenance should include grading in the spring, summer, and fall to keep all gravel roads relatively smooth.

The results of this road condition analysis can be seen on the next page (Map E). The two roads that showed up prominently in the Township survey—Maple Grove Road & Morris Thomas Road—were also identified in this model analysis. Both roadways received ratings of “4” based on their deterioration and poor condition. One section of Maple Grove Road from Solway Road to Caribou Lake Road was rated a “5” due to severe dips that threaten to become dangerous if improvements are not made in the near future.

Comparatively, the best roads in the township are Highway 2 and assorted local segments in the northeastern portion of the township. The Highway is an important corridor not only for Solway Township, but also for the State of Minnesota. Its condition should always be a priority when examining the roads in the township. With improvements to both Maple Grove and Morris Thomas, all paved roads in the township will be in fairly good condition.

Map E: Road Conditions

1--smooth, freshly paved, almost flawless


2--slight deterioration or unevenness of roadway may be present; pavement may be starting to crack, but still a pretty smooth ride

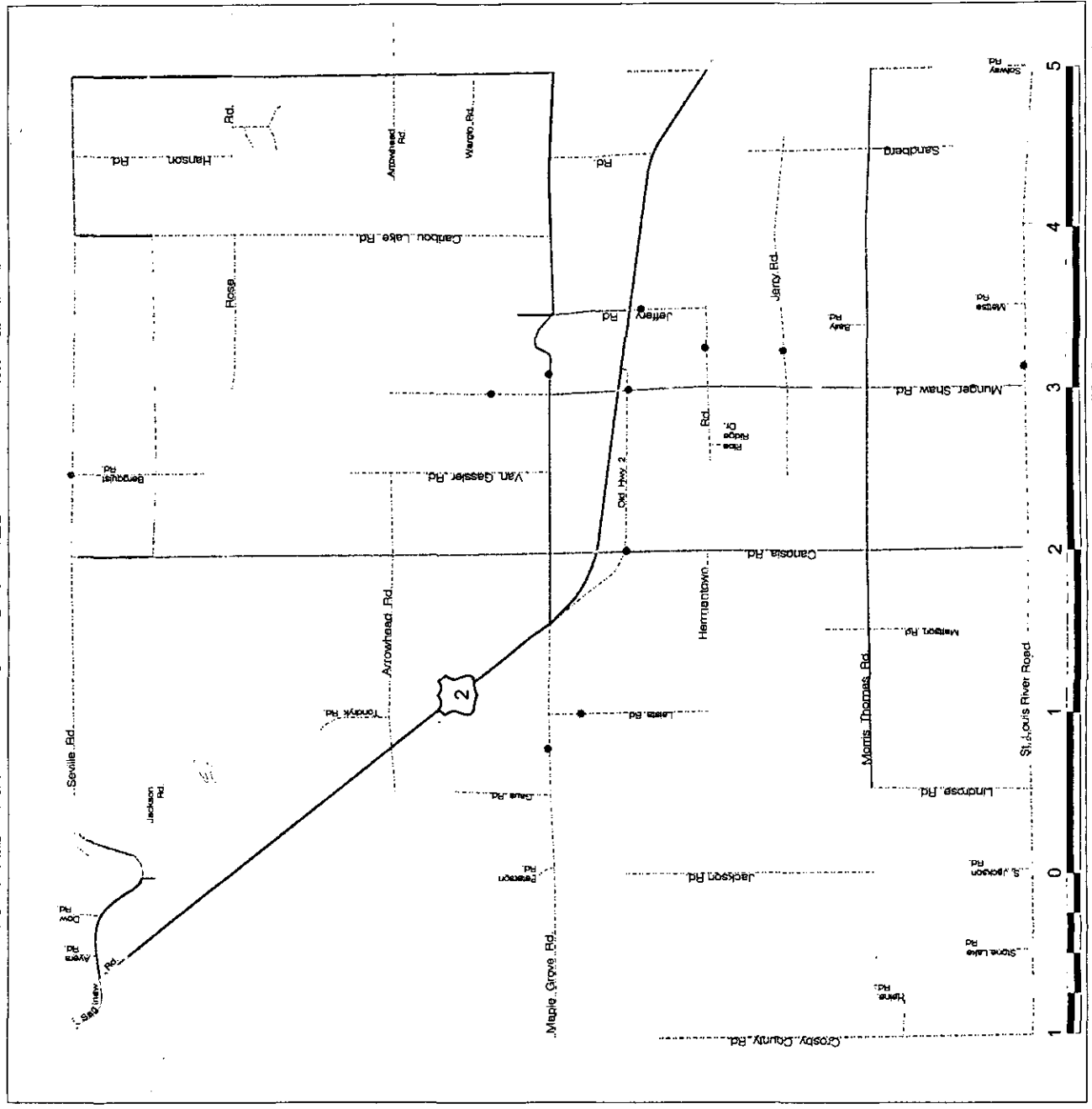
3--roadway is rougher than in 2; potholes may be present, but do not seriously effect the driving conditions

4--roadway is rough and bumpy; potholes are present; a driver would need to slow down from the posted speed at times due to the poor road condition

5--extensive potholes and other large bumps, dips or unevenness; road cannot be driven at the posted speed due to its extremely poor condition

gravel

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PQI (Pavement Quality Index)

The pavement quality index is an assessment performed by the county to gauge the surfaces of its roadways. The identified areas of Maple Grove Road and Morris Thomas Road have some of the lowest PQI ratings in the township, and are consistent with both the survey and the ARDC Model.

Rail Crossings

Rail crossings are a concern in all transportation networks as trains can cause major delays in travel time and represent a considerable safety hazard to traffic. The only recorded accident near a rail line since 1995 occurred near the DWP line crossing on Maple Grove Road. Available data did not specify whether the accident had been caused due the presence of a train. Nevertheless, it should be a continuing priority of Solway Township to ensure all rail crossings are safe, and that any concerns be brought forward to St. Louis County staff. A rail corridor safety study focusing on the DWP line that runs through Solway Township is scheduled to begin in late 2000. This line is responsible for six of the ten road/rail intersections in the Township. Solway Township should be represented when public meetings are held to gather citizen input on these rail crossings. Any recommendations that come forward as a result of this planning process should be amended into this Comprehensive Plan.

New Road Construction

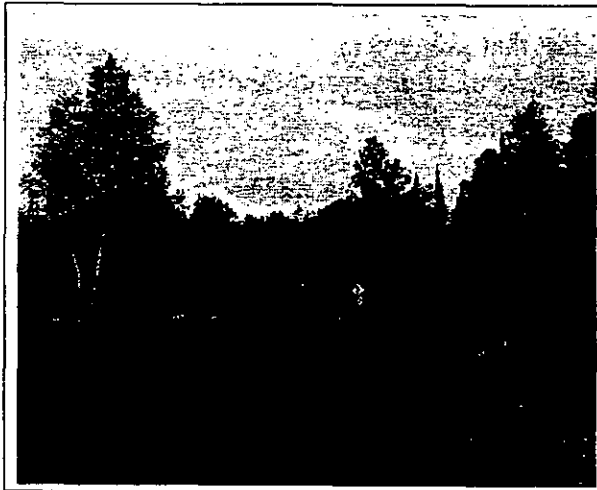
Solway Township is occasionally faced with requests to construct and/or maintain new roads to serve one or two homes in section interiors. The construction cost of such projects strain Solway's financial resources and the local taxes generated usually are not sufficient to cover maintenance costs. In addition, transportation costs are increased for other public services such as the school district. The township should pursue a policy of declining such requests unless it can be demonstrated that:

- A need exists for developable land in addition to that available along existing local roads and/or
- The proposed development will generate sufficient tax revenues to cover resulting capital and maintenance costs.

Utility Right-of-ways

Solway is criss-crossed by a variety of transportation right-of-ways including six high-voltage power transmission lines and one pipeline. Although residents do benefit from their presence, they do cause serious aesthetic and developmental problems.

New roadways need to be reviewed by the Township to ensure their building does not put undue pressure on financial resources.



The need for these right-of-ways is recognized, but in the future, the Township should take a firm stance for shared or multiple use of existing right-of-ways.

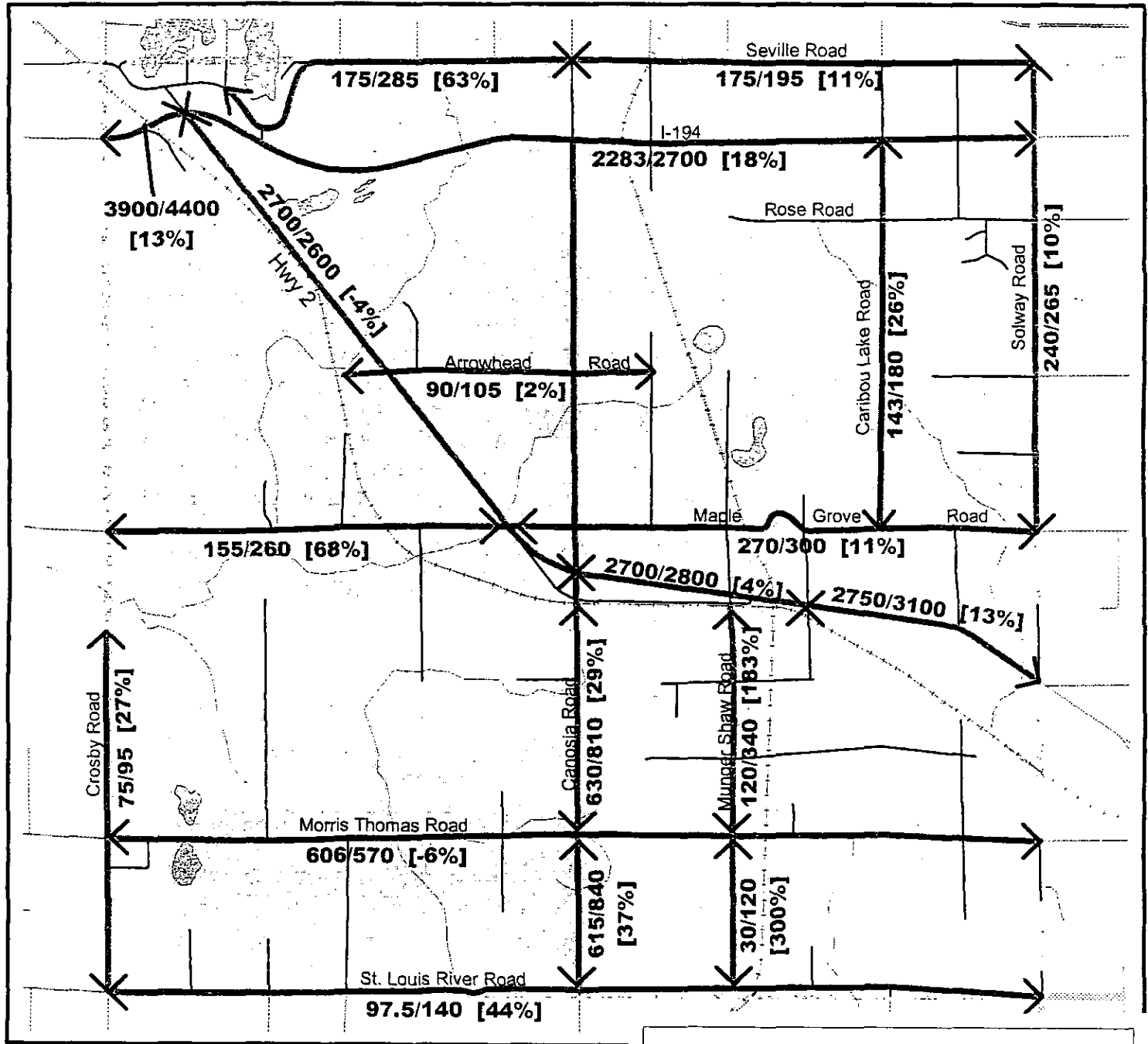
ADT Counts

Average Daily Traffic (ADT) Counts are a measurement taken by the Minnesota Department of Transportation to determine traffic levels on roads. By examining these numbers, much can be learned about how both residents and through traffic are using the roads. Notable differences in traffic levels can be seen on both Highways that traverse the township (See Map F). Highway 194 is seeing 18% more traffic than it did just 12 years ago—an increase of over 417 cars/day. This increase can mostly likely be attributed to growth in the Miller Hill shopping area in Duluth and its importance as a link between Highway 2 and Highway 53. The difference seen on Highway 2 cannot be explained as easily. The southernmost portion of the Highway in the Township has seen a 13% increase in traffic, or an increase of 350 vehicles/day since 1987. Another count taken on the middle portion of the Highway shows a slight increase of 4% or 100 more vehicles/day, while the northern part of the Highway is showing a decrease of 4% or 100 vehicles/day. It could be expected to see a slight rise in traffic going to/from Proctor, but not on the magnitude of 350 cars as seen in the southernmost section.

Smaller roads have also seen some dramatic rises in daily traffic. One noteworthy increase is on the Munger Shaw Road, which has seen an average daily increase in traffic of 15 %/year from 1987 to 1999 (a 183% increase) between Highway 2 and Morris Thomas Road. The next segment of the Munger Shaw Road between Morris Thomas Road and St. Louis River Road has seen a 300% increase over the same time period! Granted, the number of vehicles is still not many (340 and 120 respectively), but continual increases of this magnitude will, over time, take its toll on the roadway's integrity. Our road condition model rated the Munger Shaw Road as a "three"—being in usable shape, but approaching a time when work should be done to improve the road's surface. Also Canosia Road saw a significant increase. The section of Canosia Road between St. Louis River Road and Morris Thomas Road has seen a 37%/day increase, an increase of 225 vehicles/day. Canosia Road between Highway 2 and Morris Thomas Road increased 29%/day, an increase of 180 vehicles/day. A count was unavailable on Canosia Road between highway 2 and Highway 194, but is unlikely that traffic would be making that movement in any event. Other notable increases occurred on Maple Grove Road west of Highway 2, Seville Road west of Canosia Road, and on St. Louis River Road.

There are many reasons for the increase in traffic seen on these roads. The reliance on personal vehicles is a necessity given the low population density and rural nature of the township. The reliance on cars in today's society means an increasing number of drivers/household, and in most cases, more vehicles to accommodate the increased needs. Population has been slowly increasing in Solway Township, rising a little over 100 people between 1980 and 1990. New census data soon to be released may show a continuation of growth, which would have an effect on the Township's roads.

Map F: Percent Increase in Average Daily Traffic from 1987 to 1999



Munger Shaw Road, Maple Grove Road, and Solway Road all saw large increases in usage over this eight year period. New counts should continuously be checked to see if these trends continue.



Road Segments with ADT Counts

/ #### [X%]

1987 ADT / 1999 ADT [percent increase]



Beginning / Endpoint of data segment

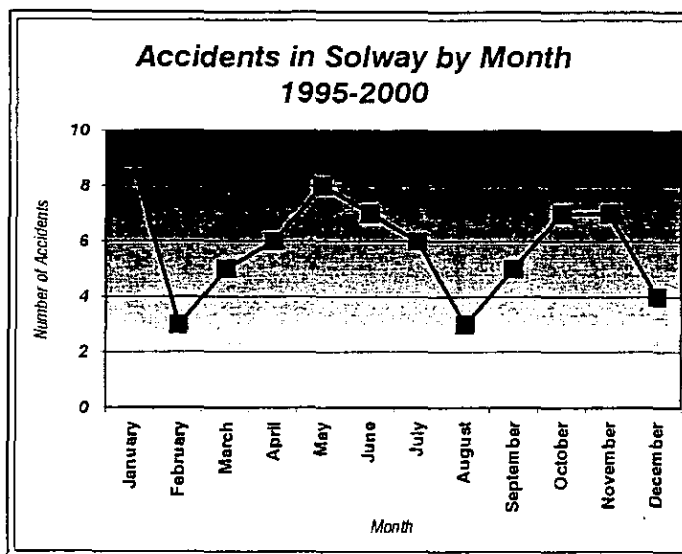
Accidents

Safety and its improvement is always a main concern when examining any roadway system. Accident data from 1995 to the present was collected from the St. Louis County Sheriff's office. Through these six years, Solway Township has proved to be a relatively safe place to be driving a vehicle. Only 70 accidents have occurred on Solway Township roads over this timeframe as compared to 106 and 120 accidents in Lakewood and Canosia Townships respectively. Given Solway is nearly identical in size and population to these two townships, Solway can be proud that it does indeed have a safe driving record.

Map G on the following page plots out all 70 of the accidents occurring between 1995 and 2000. Two problem areas are immediately recognized on Maple Grove Road and Morris Thomas Road. Over $\frac{1}{2}$ of all accidents in the Township over the given time period have occurred on these two stretches of roadway. One issue that may be playing into these accidents are the current road conditions. Both Maple Grove Road and Morris Thomas Road, as discussed earlier, were rated as being two of the worst paved roads in the entire township. The paved portion of Maple Grove Road has seen a considerable rise in use since 1987—270 cars/day in 1987 up to 660 cars/day in 1995. The continuation of this traffic increase, combined with poor conditions from Solway Road to Highway 2, and the number of accidents here to date, support the immediate need for roadway improvements along Maple Grove Road. Morris Thomas Road comparatively carries more traffic, but has had fewer accidents than Maple Grove Road. This is probably due to better sight distances on Morris Thomas Road. It too should be highly considered for roadway improvements.

Figure 11 shows a breakdown of all accident occurrences by month since 1995. The first noticeable detail is that there is no correlation between the season of the year and accident occurrences. In fact, only 34 accidents have occurred between the colder months of November through April while 36 accidents have occurred between the warmer months of May and October. The range of accidents (six) also indicates that time of the year plays little role in when accidents are occurring.

Figure 11:



Source: St. Louis County Sheriffs Office

Map G: Auto Accidents in Solway Township 1995-2000

1 accident

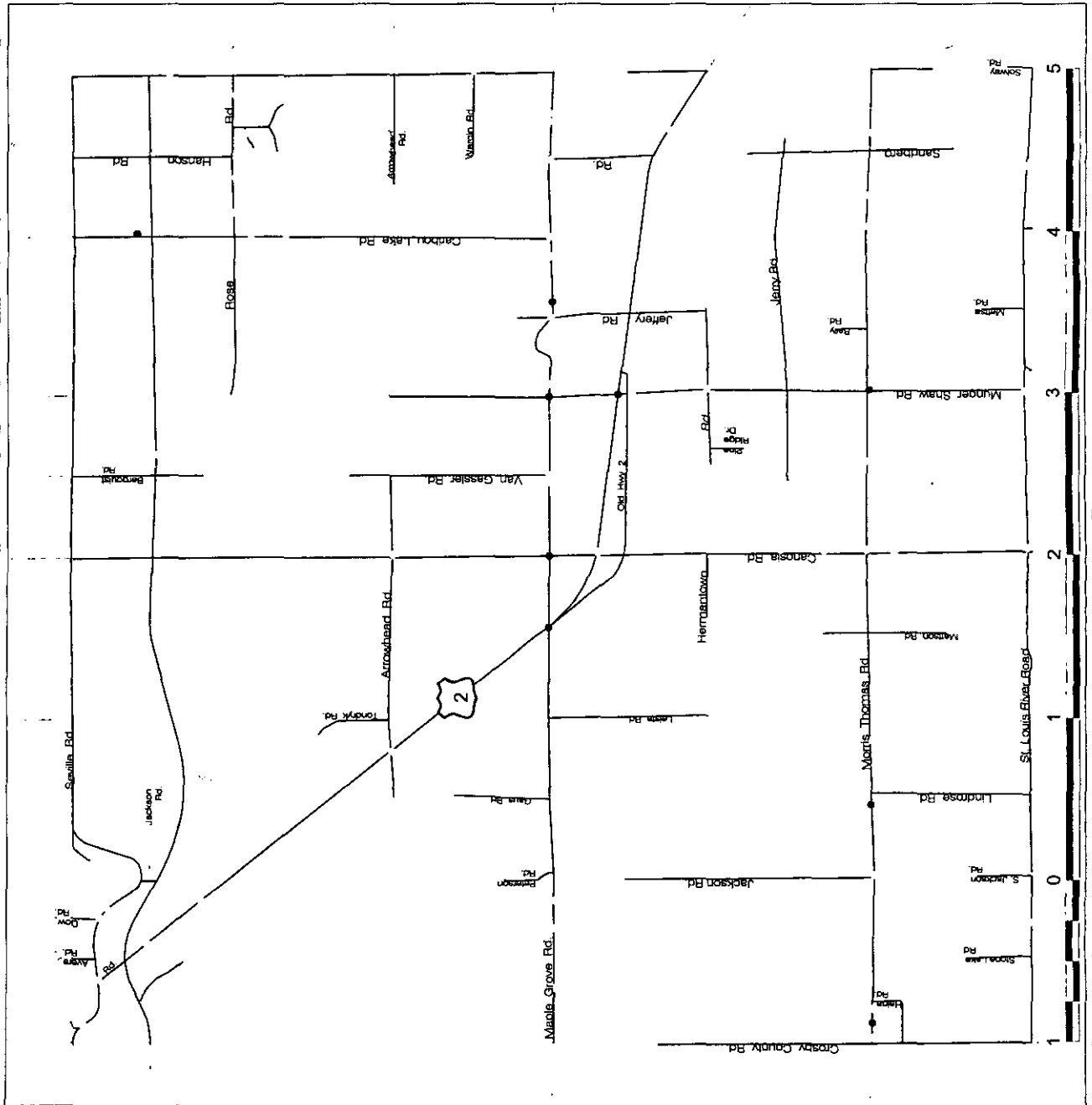
• 2 accidents

Rail lines

Perennial streams
Intermittent streams
Lakes

Municipal boundary

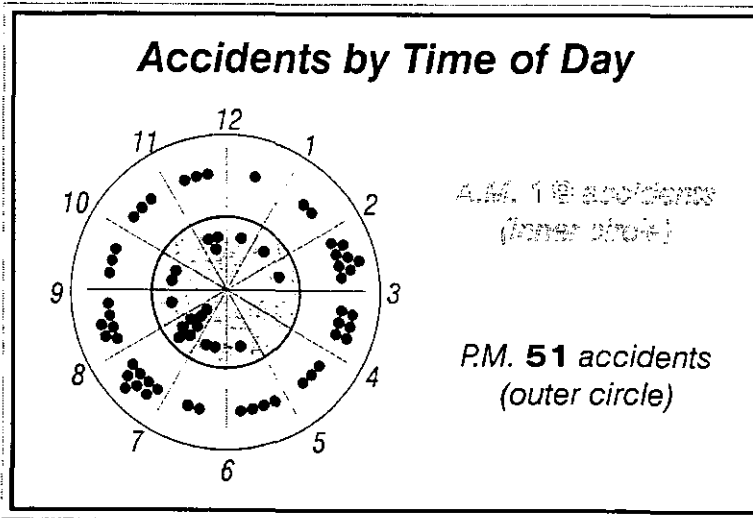
Maple Grove Road (20) and Morris Thomas Road (16) are seeing the greatest number of accidents of the roads in Solway Township. These two paved roads are also in the greatest need of repair.



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Figure 12 illustrates accidents by time of day. The commuting time between 7am and 8am sees the most accidents in the morning hours while mid afternoon (2-3 o'clock) and mid evening (7-9 o'clock) see the majority of the accidents in the p.m. As most accidents are occurring on Maple Grove Road and Morris Thomas Road, both of which are east-west routes, one factor could be difficult sun conditions during sunrise and sunset that impair a drivers ability to clearly see the roadway ahead. The summer hours between 7 p.m. and 9 p.m. are high activity times and it is not surprising to see accidents occurring at this time. No correlation could be seen between the time and location of the accidents.

Figure 12:

Source: St. Louis County Sheriffs office

Future Projects

St. Louis County has scheduled the following roadways for overlay work:

- ☐ 2002: Morris Thomas Road from Canosia Road to Crosby Road
- ☐ 2002: Canosia Road from St. Louis River Road to Hwy 2.
- ☐ 2003: Canosia Road from Hwy 2 to Hwy 194.

Transportation Goals and Policies

Goal 1: Establish and maintain a transportation system capable of providing safe, efficient, and economical travel patterns within and through the township.

Policy: Coordinate the design of road facilities with land development, especially in the vicinity of intersections.

Policy: Assure the diligent maintenance of at-grade railroad crossing protection devices and line-of-sight distances.

Policy: Strive to limit access points off of Highway 2 and 194 by only allowing access to adjacent land from side roads if and whenever possible.

Goal 2: Protect the major capital investment of the road network within the township.

Policy: Protect the functional integrity of arterials and collectors

Policy: Request for strict enforcement of seasonal load limits.

Goal 3: Promote methods of increasing transportation energy efficiency.

Policy: Encourage the inclusion of paved walking/biking lanes during any road construction or maintenance work.

Policy: Work with the DTA to provide a ride-and-drive lot in Proctor.

Policy: Encourage the formation of car pools

Goal 4: Coordinate new road construction and maintenance with traffic circulation, the need for developable land, and available financial resources.

Policy: Allow consideration to requests for future access to section interiors.

Policy: Insist that all roads being turned over to the township meet state road specifications for their intended purpose.

Goal 5: The township should seek to minimize the consumption of land for utility right of ways.

Policy: Promote shared or multiple use of existing transportation and utility corridors.

Recommendations

- **Recommend that St. Louis County moves forward on Solway Township's High Priority Road Maintenance Needs as defined by the ARDC road condition study in conjunction with the Solway Township Survey. Identified roads include:**
 - ***Maple Grove Road*** from Solway Road to Highway 2
 - This stretch of road has seen 17 accidents over the past five years (nearly ¼ of all accidents in the entire township)
 - Identified by 42% of Township survey respondents as being in very poor condition
 - Identified by ARDC as being in immediate need of maintenance.
 - Average PQI is 2.05
 - ***Morris Thomas Road*** (all)
 - Sixteen accidents over the past five years
 - Identified by 35% of Township survey respondents as being in very poor condition
 - Identified by ARDC as being in need of maintenance.
 - Average PQI is 2.43
- **Provide pedestrian/bicycle facilities when undertaking any road reconstruction projects.** The Township should strive to incorporate amenities for alternative transportation modes in an effort to provide its citizens with a multi-modal transportation system. Any work done on Maple Grove Road or Morris Thomas Road should seek to maintain or provide a pedestrian/bicycle friendly shoulder.
- **Recommend that St. Louis County review the need for additional safety controls/devices at the following intersections:**
 - Highway 2 and Canosia Road
 - Highway 2 and Munger Shaw Road
 - Canosia Rd and Maple Grove Rd
 - Munger Shaw and Maple Grove Rd.
 - Munger Shaw and Morris Thomas

Each of these intersections has seen two or more accidents over the past five years, or was identified as a dangerous area by the Comprehensive Plan Committee. Considerations should be given to lighting these intersections at night or including additional traffic controls.

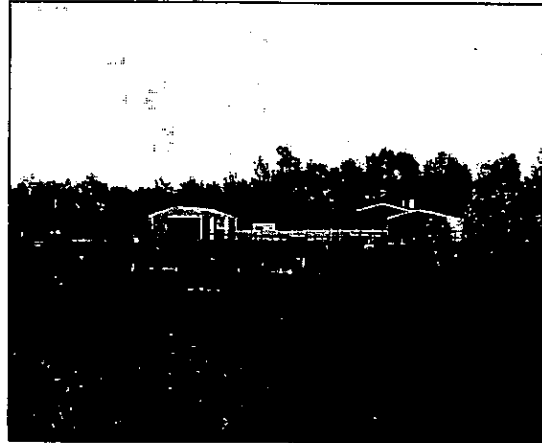
- **Recommend that St. Louis County do a speed limit review on Maple Grove Road (from Solway Road to Highway 2).** The high number of accidents seen on this stretch of roadway combined with vocal citizen recommendation warrant a slower speed limit to improve this area's safety. Currently, the section in question has a posted speed limit of 55 m.p.h.
- **Recommend that St. Louis County be asked to increase speed limit enforcement along Morris Thomas Road and Maple Grove Road through Solway Township.** Many citizens expressed a concern over the lack of enforcement along this roadway and estimated that average speeds are 55 m.p.h. Currently, the posted speed limit for Morris Thomas Road is 40 m.p.h.

Land Use

LAND USE

Introduction

Solway Township consists of some 36 square miles of land located within the drainage basin of the Saint Louis River. A gently rolling landscape provides the scenic backdrop for this rural community of 1,847 people (*State Demographers estimate for 1998*). The rural character of Solway Township provides a high quality of life while the close proximity to Duluth, Hermantown, and Cloquet offer access to the opportunities that more urbanized areas can provide. In order to help ensure that



the fine quality of life enjoyed by residents continues well into the future, Solway Township residents are actively involved in land use decisions that impact their township.

The motivation behind the comprehensive planning effort that resulted in the production of this document stems from concern over the future control of land use in Solway Township. With this in mind, Solway Township established a moratorium on certain land uses and began the comprehensive planning process to develop a vision for future land use development. The purpose of the moratorium was to postpone action regarding five separate land use issues until after the comprehensive planning process has been completed, thereby lessening the possibility of allowing uses that might be inconsistent with the updated plan. Land uses covered under the moratorium include the expansion and establishment of gravel mining operations, the expansion and establishment of junk / salvage yard operations, the establishment of landfills, the erection of cell towers, and all rezoning.

In order for Solway Township to play a larger, more significant role in future land use decisions, it is necessary to examine the current pattern of land use, identify existing land use issues, and formulate future land use goals. This chapter will identify and describe the existing pattern of land use in Solway and summarize the views of residents concerning land use issues. The chapter will conclude with the formulation of land use goals and the recommendation of policies that will help accomplish those goals.

Residential

Large lot residential land use represents the dominant land use category in Solway Township. Although the residential settlement pattern generally is diffuse throughout the township, there is a marked tendency toward a 'strip' development pattern occurring along the principle transportation corridors. The highest levels of residential development can be found in the eastern part of the township and along Morris Thomas Road, paralleling the southern border. The lowest level of residential development is associated with the northwestern quadrant of the township (See Map A, Page 10, existing land use).

This settlement pattern can be largely attributed to accessibility; the eastern and southern portions of the township have a dense road network relative to the northwestern portion and are readily accessible to more urbanized areas such as Hermantown, Duluth, and Proctor.

Solway Township is likely to experience a continued demand for residential development, especially along the main thoroughfares, resulting from its accessibility to Hermantown, Duluth, and Proctor. Residential development in Solway Township has remained steady over the last decade, averaging 12 building permits per year since 1989 (*St. Louis County Department of Health*).

Residents of Solway Township are overwhelmingly in favor of maintaining the rural character of the community. A survey of Solway Township residents completed in March of 2000 reports that 91 percent of respondents consider the community a rural area. It also reported that 81 percent of respondents either disagreed or strongly disagreed with the statement the "Solway should strive to become a city." The majority of survey respondents, 47 percent, strongly disagreed or disagreed, 31.4 percent were neutral when asked if an "increased population is desirable." The community's desire to retain the rural character is underscored by Solway Township's vision statement, which highlights Solway's "rich rural lifestyle" and seeks to "preserve the existing lifestyles of its residents."

Commercial

Commercially zoned land accounts for about 120 acres of Solway Township and lies mainly between US Highway 2 and Old US Highway 2. Solway Township's close proximity to large commercial districts located in Hermantown and Duluth provide residents with easy access to goods and services and limits the need for the local provision of most goods and services.

Consistent with their views on residential growth, residents of Solway Township do not support increased commercial development. The responses to the community survey highlights resident's desire to limit commercial development. A majority of respondents (69 percent) either strongly disagreed with, disagreed with, or were neutral toward the statement, "commercial areas should be established and developed." In contrast, only 28 percent of respondents agreed with the same statement.

Extractive

Solway Township is very gravel rich. The extraction and processing of gravel is the major industrial land use in Solway Township. There are 19 separate operational gravel pits in the township and many more that are abandoned. One of the operational pits is owned by the Land Department, two are owned by the State of Minnesota, three are owned by St. Louis County, and the remaining 13 are in private hands. Five of the gravel pits are located in the northwest portion of the township and the remaining 14 are in the eastern portion of the township and mostly along Morris Thomas Road. Most of the gravel pits are located within about one quarter mile of the township's transportation corridors (See Figure 13).

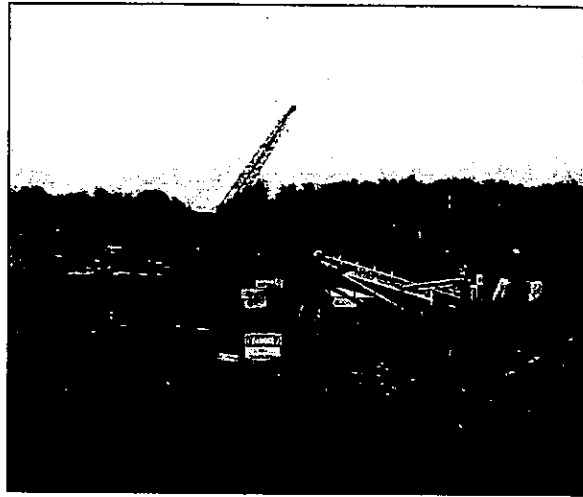
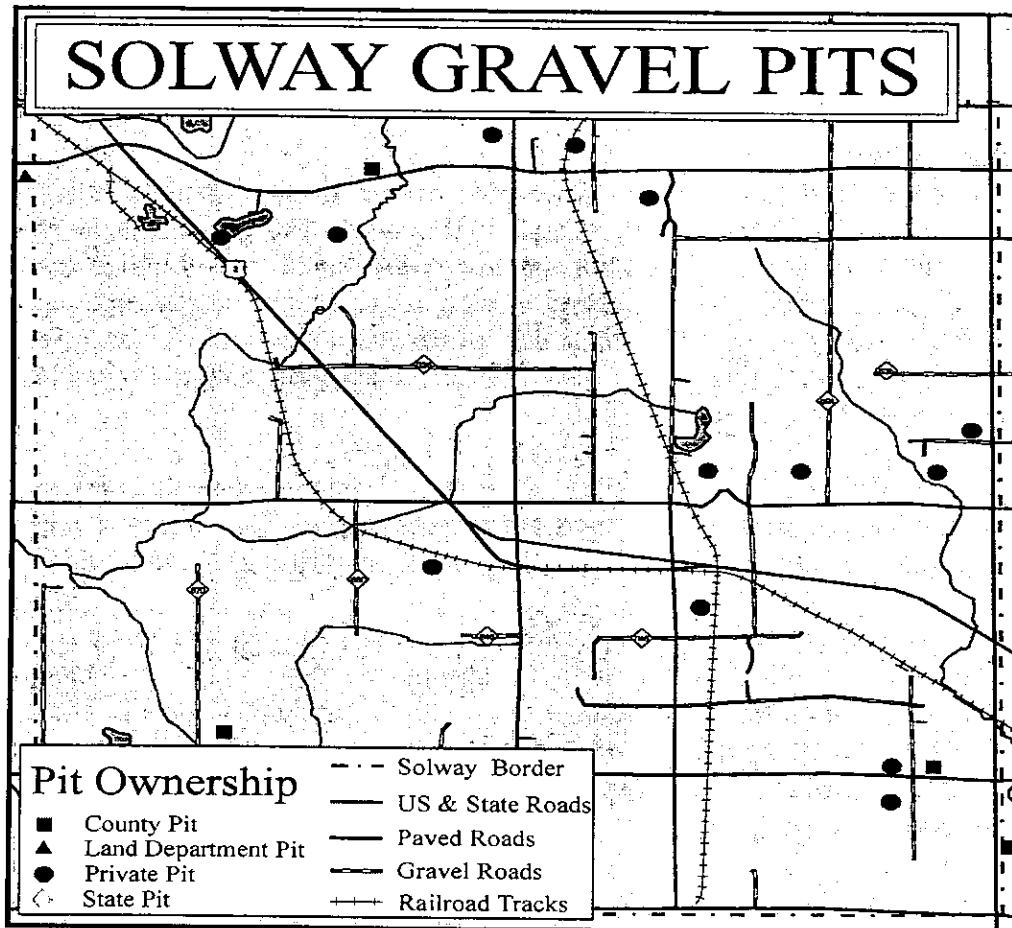


Figure 13: Solway Gravel Pits



Source: St. Louis County

Not only are these gravel pits important for Solway Township, they represent an important resource beyond its borders. Gravel from Solway Township pits contribute significantly to construction projects throughout the Duluth / Superior area.

Because Solway Township is very gravel rich, it is likely to experience continued pressure for the expansion of current operations and the establishment of new operations over time. As a result, the potential for conflict is heightened as residential land use continues to increase. The pattern of gravel pit location approximates the pattern of residential development. Solway residents have been concerned with the county's enforcement efforts regarding pit reclamation and would like to see strong enforcement. For these reasons, the moratorium referred to above included the establishment and expansion of gravel pit operations. Concerns voiced during Comprehensive Plan Steering Committee meetings included traffic, noise, dust, and enforcement of pit reclamation. Solway Township would like to reduce the potential for conflicts between gravel pit operators and residents. Gravel pits operations, neighboring more residential areas are likely to cause conflicts. It is therefore important to try to minimize development of new gravel pit operations close by areas that have a more residential character. These areas may need to be considered for rezoning as residential. By the same token, it is important that areas next to known potential future gravel operations are not rezoned to residential and a buffer between residential development and potential gravel operations is maintained.

Parks and Recreation

The recreational opportunities in Solway Township revolve mostly around outdoor activities that take advantage of the diverse natural environment. The woodlands, lakes, and streams of the area present tremendous outdoor recreational opportunities that include such activities as hiking, snowshoeing, cross-country skiing, birding, hunting, fishing, snowmobiling, and recreational vehicle use, as well as a beautiful backdrop for cycling. There is also a picnic area, a ball field, soccer fields, basketball courts, and a winter skating rink at the Town Hall.

Results of the community survey indicate that residents are interested in diversifying recreational opportunities. Seventy-one (71) of the community survey respondents agreed with the statement that "recreational facilities should be built and expanded in the future".

Respondents were slightly in favor of some hunting restrictions and restrictions on off-road recreational vehicles which would help to ensure the enjoyment of outdoor recreational activities by non-hunters and non-off-road vehicle enthusiasts. Finally, more survey respondents seemed to be unsatisfied with the current walking and biking lanes than were satisfied, indicating that improvements would be welcome (see the Transportation Section).

Agriculture

The number of agricultural operations in Solway Township has been declining over the last three decades. Most active farms in the township can be classified as either part-time operations or hobby farms. The 1990 census lists 17 of 599 households as self-employed with farm incomes. Although it is an important element in the cultural heritage of Solway Township, agriculture is likely to become a less significant land use as time goes on. This is due in part to the marginal quality of farmland and larger economic trends in agriculture, which favor ever-larger operations, and in part to the growth in residential land uses which may lead to farmland being developed for residential uses. Never the less, residents of Solway overwhelmingly favor continuation of agriculture as a land use within the township. Only ten percent of respondents to the community survey disagreed with the statement that "farming and ranching developments should be promoted in Solway." Existing farming operations should be protected from incompatible uses such as commercial, industrial, or suburban density residential developments. In order to ensure continued room for agricultural activities in Solway, large lot sizes should be enforced. Development of industrial feedlot agricultural operations however is not seen as a compatible land use with the desired rural character of Solway Township, due to potential conflicts with residential uses in Solway Township such as odor as well as potential for groundwater contamination.

Forestry

Forestry in Solway Township is controlled largely by private industry. This land use is limited to the western half of the Township where large corporate holdings and public lands are free of development pressure. Solway Township's forests suffered successive waves of pest-related disasters between the 1960's and 1980's from infestations of tent caterpillars, Dutch elm beetles, and the bronze birch borer. Solway's elm stands and white birch forests were devastated as a result. Solway Township's forests provide opportunities for forestry and recreation. Recognizing the importance of this resource to Solway's quality of life, respondents to the community survey overwhelmingly are in favor of "encouraging forest management". Only five percent of respondents disagreed with this statement.

Landfills

Although Solway Township is currently free of solid waste landfills, the potential for their development represents a growing concern among residents of Solway Township. This concern stems from the combination of the need to reclaim abandoned gravel pits and the need to dispose of waste. The issuance of solid waste permits was included in the moratorium established prior to the start of the comprehensive planning process. Sanitary landfills are considered a conditional use in the Forest Management District (FAM) and the Multiple Use Non-Shoreland (MUNS) zoning districts. In addition to this, the MPCA has the authority to issue a "permit-by-rule" for solid waste facilities. The permit-by rule process is one that results in the issuance of a one-year solid waste permit without additional County or Township regulation.

Community views concerning landfills are clear from the results of the community survey. Only eight percent of survey respondents disagreed with the statement that "Solway should discourage all new landfills."

Landfills were also a recurring topic during Comprehensive Plan Committee meetings. Committee members acknowledged that Solway Township residents generate their share of solid waste. However, they do feel that within the region there is adequate capacity for disposal. The concern among Committee members was focussed primarily upon the potential for contaminated and hazardous materials being placed into future landfills within the Township. Township residents rely on private wells for their drinking water. Groundwater contamination could have a devastating impact upon the community. Solway Township would like to ensure that groundwater and soil contamination does not occur as a result of waste disposal. Other concerns voiced are increased traffic, noise, odor, dust, and visual impacts as a result of landfill operations. These should be taken into account when reviewing a request for a conditional use permit.

Cell Towers

As demand for wireless communications continues to increase, so too does the need for associated physical infrastructure such as cell towers. Although there are currently no cell towers located in Solway, it is anticipated that there is interest in doing so. This anticipation led Solway Township to include cell towers in the moratorium. A majority of respondents to the community survey indicated that they are neutral regarding the placement of restrictions on cell towers. The Comprehensive Plan Committee, however, agreed there is a need for full coverage of wireless service within the township and considered the location of cell towers in Solway to be acceptable, as long as their number and visual impact is kept to a minimum.

Land Use Controls

Solway Township has adopted an adult entertainment ordinance in response to recent concern that adult oriented commercial establishments may attempt to locate in the township's commercial district. The ordinance requires that all adult entertainment businesses wishing to locate in Solway first obtain a license from the township.

Public Involvement in Land Use Decisions

The need for local input regarding land use issues is evident from the responses to most of the land use related community survey questions and from Committee discussions. In fact, about 60 percent of survey respondents who had an opinion on the matter agreed with the statement that "Solway should finance the enforcement of its own zoning and planning." A Township Planning Committee could play a more pro-active role in working with the County Planning Commission on land use decisions.

St. Louis County Zoning Regulation

Currently, the zoning function for Solway Township rests with St. Louis County. As part of its County-wide zoning ordinance, St. Louis County has divided Solway Township into five distinct zoning districts with a total of eight zoning 'sub-districts'. The current zoning districts are shown on Map H on the next page. Those five zoning districts, their purposes, their sub-districts, and their permitted and conditional uses are as follows:

Forest Management District (FAM)

This district is intended to recognize and promote the development of the County's forestry and agricultural industry and to encourage recreational use of such areas. This district is typically used in areas with land developed at very low densities and often there is considerable government and corporate ownership. A low level of development is important in areas where this district is used since the uses encouraged in this district would be less compatible in a more urban setting.

- **FAM 1** – 35 acre minimum lot size
- **FAM 2** – 17 acre minimum lot size
- **FAM 3** – 9 acre minimum lot size

Permitted Uses:

1. Temporary wood processing activities.
2. Home occupation.
3. Public recreational facilities.
4. Hunting shacks and other primitive dwellings.
5. Accessory uses.
6. Livestock.
7. Seasonal Residences.

Permitted Uses with Performance Standards:

1. Single family dwellings.
2. Recycling centers (publicly operated).
3. Signs, on-site and off-site.
4. Borrow pits-public works.
5. Mineral exploration and evaluation.
6. Community center facilities.
7. Residential density controls and density transfer.
8. Single site contaminated soil disposal.
9. Home Business.

Uses Authorized by Conditional Use Permit:

1. Aqua-culture operations.
2. Feedlots.
3. Rural industry.
4. Utility facilities.
5. Electric generation facility.
6. Sanitary landfills and facilities related to solid waste disposal or recycling.
7. Slaughterhouse.



8. Junk or salvage yards.
9. Peat extraction and processing.
10. Kennel.
11. Airport.
12. Commercial or private recreational uses which by their nature require large land areas such as campgrounds and race tracks.
13. Highway commercial.
14. Neighborhood commercial.
15. Permanent forest processing.
16. Borrow pits.
17. Multiple site contaminated soil disposal facility including incineration.

Residential (RES)

This District is intended to be used in those areas with extensive residential development. This district is used to promote a high quality residential living environment where non-residential uses are restricted. This district may be used in shoreland and non-shoreland areas that are typically platted or, if not platted, have a development density of dwellings of more than one dwelling per 300 lineal feet of road or shore frontage.

- **RES 5** – 2 ½ acre minimum lot size

Permitted Uses:

1. Single family dwellings.
2. Home occupations.

Permitted Uses with Performance standards:

1. Two family dwellings.
2. Signs.
3. Accessory structures larger than 1,000 square feet.
4. Residential density controls and density transfer.

Uses Authorized by Conditional Use Permit:

1. Multiple and three and four family dwellings.
2. Residential planned unit developments.
3. Home business.
4. Group home.
5. Public/semi-public uses.
6. Mineral exploration and evaluation.
7. Utility facilities.
8. Mobile home park.
9. Neighborhood commercial.

Multiple Use Non-Shoreland (MUNS)

The rural areas of St. Louis County outside of shoreland areas, due to the low density of development, can accommodate a wide range of activities if properly sited.

- **MUNS 4** – 4 ½ acre minimum lot size
- **MUNS 5** – 2 ½ acre minimum lot size

Permitted Uses:

1. Single family dwellings.
2. Seasonal dwelling.
3. Home occupation.
4. Accessory uses.

Permitted Uses with Performance Standards:

1. Home business.
2. Recycling centers. (publicly operated).
3. Borrow pits-public works projects.
4. Two, three, and four family dwellings.
5. Livestock.
6. Community center facilities.
7. Single site contaminated soils disposal.
8. Home Business.

Uses Authorized by Conditional Use Permit:

1. Public facility renovation.
2. Planned development.
3. Mobile home parks.
4. Recreational vehicle parks.
5. Rural industry.
6. Public/semi-public uses.
7. Highway and neighborhood commercial.
8. Multiple family dwellings.
9. Kennels.
10. Junk or salvage yards.
11. Multiple site contaminated soils facility including incineration.
12. Sanitary landfills and facilities related to solid waste disposal or recycling.
13. Airport.
14. Utility facilities.
15. Temporary wood processing facilities.
16. Group home.
17. Borrow pits.

Shoreland Mixed Use (SMU)

This district is intended to provide a balance between lake and river use and the water resources by allowing a wide range of uses that are consistent with adjacent land uses and the recreational and natural attributes of the water body.

- **SMU 7** – 1 acre minimum lot size

Permitted Uses

1. Single family dwellings.
2. Seasonal dwellings.
3. Public and semi-public, non-commercial uses including trails, parks, beaches, waysides, etc.
4. Accessory uses.
5. Home occupation.

Permitted Uses with Performance Standards:

1. Signs.
2. Accessory structures larger than 800 square feet.
3. Water-orientated accessory uses.
4. Two-family dwellings.
5. Residential density control and density transfer.
6. Single site contaminated soils disposal.
7. Home business.

Uses Authorized by Conditional Use Permit:

1. Planned unit developments.
2. Multiple, two and three family dwellings.
3. Mobile home park.
4. Waterfront commercial.
5. Neighborhood commercial.
6. Public/semi-public uses.
7. Utility facilities.
8. Borrow pits.
9. Mineral exploration and evaluation.
10. Livestock.
11. Public facility renovation.
12. Group home.
13. Airports.
14. Temporary wood processing.
15. Off-site signs.
16. Aqua-culture.
17. Multiple site contaminated

Non Shoreland Commercial (COM)

This district was established to direct intense and varied commercial development outside the shoreland area to appropriate locations which will promote the efficient delivery of goods and services while assuring the integrity of surrounding land uses.

- **COM 11** – ½ acre minimum lot size

Permitted Uses:

1. Commercial retail and service establishments including but not limited to: general merchandise, motor vehicles, farm machinery, apparel, furniture, hardware, food, eating, drinking, lodging, personal and professional services, entertainment, and recreational facilities and services, finance, insurance, and real estate services.
2. General warehousing, storage, and wholesaling.
3. Accessory uses.

Permitted Uses with Performance Standards:

1. Signs.
2. Residential uses.
3. Single site contaminated soils disposal.

Uses Authorized by a Conditional Use Permit:

1. Public and semi-public uses.
2. Rural industry.
3. Public facility renovation.
4. Planned unit development.
5. Transportation terminals.
6. Multiple site contaminated soils facility including incineration.
7. Borrow pits.

The St. Louis County Zoning Ordinance regulates the development of subdivisions and the control of right-of-ways. The purpose of regulating platting of subdivisions is to ensure that they conform to basic standards concerning road width, drainage, lot design, development densities, and other design criteria. The intent of subdivision regulation is to protect and promote the public health, safety and welfare; provide for the orderly, economic and safe development of land; protect and enhance the natural environment; and protect potential buyers.

Right-of-way controls pertain to the use of lands owned by the state or county on or adjacent to public roads. They are generally used for the purpose of road safety and improvement purposes, though scenic easements are coming into use. In terms of access to adjacent land, right-of-way in Solway Township are controlled by the County Zoning Ordinance with occasional input by the County Engineer. This input should be mandatory on principle arterial roads in order to protect their functional integrity.

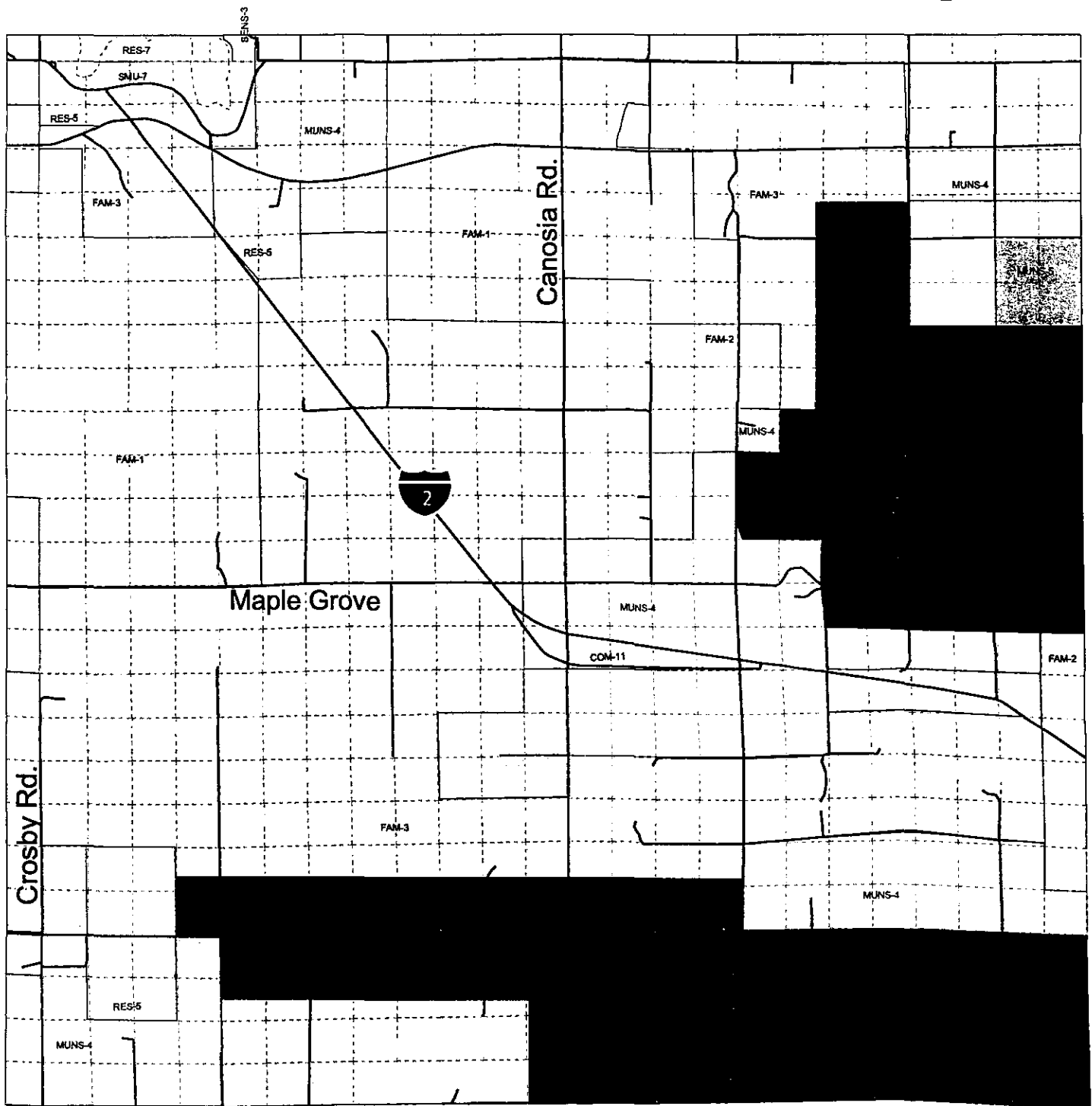
In addition to the land use ordinance, St. Louis County utilizes one other land use control that influences land use in Solway Township. The St. Louis County Individual Sewage Treatment System Ordinance regulates the design, location, installation, renovation, operation maintenance and inspection of individual sewage treatment systems. Administered by the St. Louis County Department of Public Health, this ordinance is the only firm mechanism with which the county can prevent the development of unsuitable sites.

Proposed Rezoning

Through the planning process the Solway Comprehensive Planning Steering Committee has identified a number of areas in Solway Township as having a more residential character. With Solway's proximity to the Duluth-Superior Metro area it is anticipated that there will be a continued pressure for residential development in these areas in Solway Township in particular on the Hermantown side of Solway Township. As mentioned before, Solway Township is currently growing at an average of 12 residences per year.

Map I on the following page shows the suggested areas to be considered for rezoning. Under the current zoning a variety of land uses, such as gravel operations and landfills, are allowed that could create conflicts with the more rural residential character of these areas. Taking into consideration the current land use characteristics and anticipated future increase in residential development in these areas, this plan proposes to consider rezoning to residential. The Comprehensive Plan Steering Committee proposes to rezone targeted areas to Residential 4 and 5 in order to prevent future land use conflicts, while maintaining the same allowable densities for development under the current zoning requirements in order to ensure the rural character of the Township. These zoning categories require minimum lot sizes of 4.5 or 9 acres which reflects the desired minimum lot sizes as indicated by the survey responses.

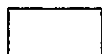
Map I - Proposed Rezoning 09032777



Minimum Requirements



Residential 2.5 Acre



Residential 4.5 Acre



Residential 9 Acre

In order to prevent future land use conflicts between residential and more industrial land use, the following areas are proposed for rezoning.

ARDC

ARROWHEAD REGIONAL
DEVELOPMENT COMMISSION
Planning...Success

Land Use Goals

Goal 1: **Ensure that land use decisions made at the county level are made with the greatest possible amount of township input and with the opportunity for public participation.**

Policy: *Form an advisory committee of Solway Township residents to review each rezoning, conditional use, and variance application that is submitted to the county for a use that will effect Solway Township. A representative of this committee should attend all County land use hearings that affect Solway to ensure that Solway Township has the greatest possible voice in decisions that will impact the Township.*

Goal 2: **Maintain and enhance the rural character of Solway Township and promote low-density residential development.**

Policy: *Continue to require large lot sizes for residential development.*

Policy: *Encourage consolidation of lots in platted areas in keeping with ownership and land use patterns.*

Policy: *Encourage retaining large land holdings in large parcels of at least 40 acres each.*

Policy: *Work with St. Louis County and Solway Township residents on rezoning of the areas as indicated on Map I.*

Goal 3: **Limit commercial development.**

Policy: *Do not allow the expansion of the commercially zoned area through rezoning efforts.*

Goal 4: Reduce potential conflicts arising between gravel pit operators and residents.

Policy: Closely monitor new requests for gravel pit operations in order to ensure the health, safety, and welfare of Solway's residents.

Policy: Take into account cumulative impacts, including but not limited to transportation, noise, dusts, and visual impacts, when reviewing a request for a conditional use permit.

Policy: Take into account the history of the operator regarding operations and reclamation of gravel pits.

Policy: Permits should be reviewed biannually and when an operation or land changes owner.

Policy: Strongly support the County's effort to ensure proper reclamation after the gravel operation has lost its use.

Goal 5: Provide a full range of recreational opportunities for all Township residents to enjoy, on an equal basis, through the expansion of existing and the development of new recreational options.

Policy: Designate specific areas for use as off-road vehicle recreation areas and restrict off-road vehicles from other areas to reduce the likelihood of conflicts arising between residential use and those interested in different types of recreation.

Policy: Promote the development of walking and biking lanes and paths whenever feasible.

Goal 6: Allow limited levels of light industrial and rural industrial uses where existing zoning and transportation infrastructure allows.

Policy: Consider compatibility with neighboring land uses.

Policy: Take into account the history of the operator concerning other or previous light industrial and rural industrial operations.

Goal 7: Support the continuation of the existing character of agricultural operations and reduce the potential for conflict with residential uses.

Policy: Do not support the establishment of new industrial feedlot operations due to potential for groundwater pollution and odor emissions.

Goal 8: Support the continuation of forest management to ensure the survival of woodlands for future generations.

Policy: Encourage controlled multiple use of forest land.

Goal 9: Keep the number and impact of landfills to a minimum to protect the health, safety, and welfare of Solway Township's residents.

Policy: Review solid waste licenses of all applicants wishing to establish landfills within Solway Township.

Policy: Permits should be reviewed biannually and when an operation or land changes owner.

Policy: Explore taxation and licensing of landfill operations by Solway Township.

Policy: Take into account the history of the operator regarding landfill operations.

Policy: Require the installation of monitoring wells, as part of the conditional use permit, to ensure that Solway Township's water resources are sufficiently protected.

Policy: Applicants wishing to establish a landfill should be required to demonstrate that all alternative ways to dispose of or reuse the materials have been considered and that no reasonable alternative is available.

Policy: Applicants wishing to establish a landfill should be required to demonstrate their ability to comply with State and Sanitation District regulations.

Policy: Require that a minimum of two feet of clay and six inches of topsoil is used when capping a landfill in order to ensure better runoff of water thereby reducing the amount of leechate introduced to the groundwater.

Policy: Require a five to fifteen percent slope once the landfill is capped.

Policy: Require an environmental review to demonstrate that groundwater will not be affected by the operation, takes into account cumulative impacts for the area regarding dust, noise, odor, and the roads' ability to handle the increased use and weight and maintain public safety.

Policy: Require a hydrological study to establish the boundaries of the affected groundwater recharge area and review potential impacts on groundwater recharge areas as well as determine potential impacted areas in case of contamination.

Policy: Determine the need for the establishment of buffer zones based on the environmental review and hydrological study.

Goal 10: Keep the number and visual impact of cell towers to a minimum.

Policy: Consider visual impacts during application review.

Policy: Require co-location whenever feasible.

Policy: Promote location in existing utility corridors whenever possible.

Policy: Require provision of space on newly constructed cell towers for co-location of additional users.

Goal 11: Keep the visual impact of utility infrastructure to a minimum.

Policy: Require the location of utility infrastructure within established transportation and existing utility corridors whenever possible. This is supported by goal number five in the transportation section.

Policy: Encourage the burying of utility lines whenever possible in order to maintain the rural esthetic character of Solway Township.

Appendices

Appendix A

14) Please circle a number best corresponding to your household's opinions about the following aspects of Solway Township:

1 = Very Unsatisfied; 5 = Neutral; 10 = Very Satisfied

| | Very Unsatisfied | About Average | Very Satisfied | N.A. |
|---------------------------------------|----------------------|------------------|-------------------|------|
| Quality of Recreational Opportunities | 1 2 3 4 5 6 7 8 9 10 | | | N.A. |
| Drinking Water Quality | 1 2 3 4 5 6 7 8 9 10 | | | N.A. |
| Electric Quality and Service | 1 2 3 4 5 6 7 8 9 10 | | | N.A. |
| Fire Department Service | 1 2 3 4 5 6 7 8 9 10 | | | N.A. |
| Law Enforcement (Sheriff) Service | 1 2 3 4 5 6 7 8 9 10 | | | N.A. |
| Ambulance Service | 1 2 3 4 5 6 7 8 9 10 | | | N.A. |
| Zoning Ordinances | 1 2 3 4 5 6 7 8 9 10 | | | N.A. |
| Enforcement of Zoning Ordinances | 1 2 3 4 5 6 7 8 9 10 | | | N.A. |
| Enforcement of Septic Code | 1 2 3 4 5 6 7 8 9 10 | | | N.A. |
| Quality of K-6 Education | 1 2 3 4 5 6 7 8 9 10 | | | N.A. |
| Quality of Middle and High Schools | 1 2 3 4 5 6 7 8 9 10 | | | N.A. |
| Quality of Area Educational Options | 1 2 3 4 5 6 7 8 9 10 | | | N.A. |

Please indicate your electric provider: ☐ MN Power ☐ Lake Country

If unsatisfied with any of the above aspects, which ones and why? _____

| | Very Poor | Average | Very Good | N.A. |
|---|----------------------|---------|--------------|------|
| Transportation Issues | | | | |
| Condition of local roads | 1 2 3 4 5 6 7 8 9 10 | | | N.A. |
| Condition of the road you live on | 1 2 3 4 5 6 7 8 9 10 | | | N.A. |
| Safety of roadway-rail line intersections | 1 2 3 4 5 6 7 8 9 10 | | | N.A. |

Please list local roads you feel are in need of repair or upgrade: _____

What is the most important transportation issue in Solway Township? _____

Please rank the need of the following transportation improvements:

| Needed? | No | Maybe | Definitely | N.A. |
|------------------------------|----------------------|-------|------------|------|
| More Roads | 1 2 3 4 5 6 7 8 9 10 | | | N.A. |
| Paving of Gravel Roads | 1 2 3 4 5 6 7 8 9 10 | | | N.A. |
| Better Upkeep of Paved Roads | 1 2 3 4 5 6 7 8 9 10 | | | N.A. |
| Walking/Biking Lanes | 1 2 3 4 5 6 7 8 9 10 | | | N.A. |
| Better shoulders | 1 2 3 4 5 6 7 8 9 10 | | | N.A. |

Please list any comments or thoughts that you have regarding this survey: _____

15)

| SD - Strongly Disagree | D - Disagree | N - Neutral |
|------------------------|---------------------|--------------------|
| A - Agree | SA - Strongly Agree | N.A. - No Response |

General Feelings About the Township:

| | | | | | | |
|---|----|---|---|---|----|------|
| Increased population is desirable | SD | D | N | A | SA | N.A. |
| Solway should strive to become a city | SD | D | N | A | SA | N.A. |
| Commercial areas should be established and developed | SD | D | N | A | SA | N.A. |
| Industrial areas should be established and developed | SD | D | N | A | SA | N.A. |
| Recreational facilities should be built and expanded in the future | SD | D | N | A | SA | N.A. |
| Some hunting restrictions are needed | SD | D | N | A | SA | N.A. |
| Restrictions on off-road & recreational vehicle use are needed (i.e., ATVs) | SD | D | N | A | SA | N.A. |
| Farming and ranching developments should be promoted in Solway | SD | D | N | A | SA | N.A. |
| Overall, housing appearances are good | SD | D | N | A | SA | N.A. |
| Overall, property appearances are good | SD | D | N | A | SA | N.A. |
| New housing should be encouraged | SD | D | N | A | SA | N.A. |
| Effort should be made with township funds to reclaim gravel pits on private property | SD | D | N | A | SA | N.A. |
| Effort should be made with township funds to reclaim dump sites on private property | SD | D | N | A | SA | N.A. |
| Solway should encourage utility development (i.e., gas pipeline, electric) in corridors | SD | D | N | A | SA | N.A. |
| Solway should discourage all new landfills | SD | D | N | A | SA | N.A. |
| Forest management should be encouraged | SD | D | N | A | SA | N.A. |
| A need for daycare exists in Solway Twp | SD | D | N | A | SA | N.A. |
| Individual septic systems are adequate for the future of Solway Township | SD | D | N | A | SA | N.A. |
| Solway should finance the enforcement of its own zoning and planning | SD | D | N | A | SA | N.A. |
| Restrictions on cell phone towers are needed | SD | D | N | A | SA | N.A. |

Thank you for taking the time to fill out this survey. **Please return this postmarked by March 24, 2000** to the Arrowhead Regional Development Commission (Duluth, MN). Your response will help Solway Township identify and plan for its future needs. If you have any questions about this survey or the future plan, please contact Ian Oas at (529-7513 or ioas@mail.ardc.org).

Township of Solway State of the Township Survey

Please answer the following questions as precisely as possible. Unless otherwise noted, do *not* check more than one answer per question. If none of the available answers suit you, please mark "N.A." for No Answer. Thank you for taking the time to fill out this survey. **Please mail this back postmarked by March 24.**

- 1) Do you consider Solway Township a:
- ☐ Rural Area ☐ Suburban Area
- ☐ Bedroom Community
- ☐ Other: _____ ☐ N.A.

- 2) How many persons live in your household (please, fill in the number of persons falling into each age group)?
- ____ 0-5 years old ____ 35-45 years old
- ____ 5-10 years old ____ 45-55 years old
- ____ 10-18 years old ____ 55-65 years old
- ____ 18-25 years old ____ Over 65 years old
- ____ 25-35 years old ☐ N.A.

- 3) Please, indicate the average travel distance from your household to work (please, answer for each working household member):
- ____ In Solway Twp ____ 20-30 mi.
- ____ 1-10 mi ____ Over 30 miles
- ____ 10-20 mi ☐ N.A.

- 4) What should be the minimum lot size suitable for the zoning of a single-family home?
- ☐ ½ Acre ☐ 1 Acre ☐ 2 Acres ☐ 4.5 Acres
- ☐ 9 Acres ☐ 17 Acres ☐ 35 Acres ☐ N.A.

- 5) In what type of housing unit do you live?
- ☐ Single Family Home ☐ Duplex
- ☐ Mobile Home ☐ Apartment
- ☐ Other: _____ ☐ N.A.

- 6) How many bedrooms does this unit contain?
- ☐ One ☐ Two ☐ Three
- ☐ Four (or More) ☐ N.A.

- 7) Does any household member currently use a form of public transportation (e.g., bus or taxi)?
- ☐ Very Often ☐ Often
- ☐ Sometimes ☐ Rarely
- ☐ Never ☐ N.A.

If yes, what kind: _____

- 8) Would anyone residing in your household ride public transportation if service was expanded closer to where you live?
- ☐ Definitely ☐ Probably ☐ Not Sure
- ☐ Doubtful ☐ No ☐ N.A.

If yes, what type: _____

- 9) What are the employment statuses of all wage earners in your household? (Please write in the number of persons for each category.)
- ____ Full Time ____ Full & Part Time
- ____ Part Time Only ____ Multiple Part Time
- ____ Self-employed ____ Unemployed
- ____ Retired ☐ N.A.

- 10) How many consecutive years have you lived in Solway Township?
- ☐ 1 year or less ☐ 20-30 years
- ☐ 1-5 years ☐ 30-40 years
- ☐ 5-10 years ☐ 40-50 years
- ☐ 10-15 years ☐ 50 + years
- ☐ 15-20 years ☐ N.A.

- 11) Within what range is your household's total annual income? ☐ N.A.
- ☐ Under \$15,000 ☐ \$35,000-\$50,000
- ☐ \$15,000-\$25,000 ☐ \$50,000-\$75,000
- ☐ \$25,000-\$35,000 ☐ Over \$75,000

- 12) The Following Forms of Housing are Needed in Solway Township:

| | Disagree - Neutral - Agree | | | | |
|---------------------|----------------------------|---|---|---|---|
| Single Family Homes | 1 | 2 | 3 | 4 | 5 |
| Senior Housing | 1 | 2 | 3 | 4 | 5 |
| Mobile Home | 1 | 2 | 3 | 4 | 5 |
| Family Rental | 1 | 2 | 3 | 4 | 5 |
| Affordable Housing | 1 | 2 | 3 | 4 | 5 |
| Other _____ | 1 | 2 | 3 | 4 | 5 |

- 13) Please describe your vision of Solway Township 10 years from now. Feel free to write on an additional piece of paper, as well.
- [Optional - ☐ N.A.]
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____

**Township of Solway
State of the Township Survey
Frequencies**

0903277

1. Do you consider Solway Township to be rural, suburban, a bedroom community or something other?

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------------|-----------|---------|---------------|--------------------|
| Valid Rural | 291 | 91.5 | 91.5 | 91.5 |
| Suburban | 8 | 2.5 | 2.5 | 94.0 |
| Bdrm. Comm. | 8 | 2.5 | 2.5 | 96.5 |
| Other | 2 | .6 | .6 | 97.2 |
| NA | 9 | 2.8 | 2.8 | 100.0 |
| Total | 318 | 100.0 | 100.0 | |
| Total | 318 | 100.0 | | |

2. How many people live in your household?

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|----------------|-----------|---------|---------------|--------------------|
| Valid 1 Person | 51 | 16.0 | 16.0 | 16.0 |
| 2 People | 135 | 42.5 | 42.5 | 58.5 |
| 3 People | 55 | 17.3 | 17.3 | 75.8 |
| 4 People | 57 | 17.9 | 17.9 | 93.7 |
| 5 or more | 20 | 6.3 | 6.3 | 100.0 |
| Total | 318 | 100.0 | 100.0 | |
| Total | 318 | 100.0 | | |

How many people age 19-25 live in your household?

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|----------------|-----------|---------|---------------|--------------------|
| Valid 1 Person | 33 | 10.4 | 10.4 | 10.4 |
| 2 People | 8 | 2.5 | 2.5 | 12.9 |
| 3 People | 1 | .3 | .3 | 13.2 |
| NR | 276 | 86.8 | 86.8 | 100.0 |
| Total | 318 | 100.0 | 100.0 | |
| Total | 318 | 100.0 | | |

How many people age 26-35 live in your household?

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|----------------|-----------|---------|---------------|--------------------|
| Valid 1 Person | 23 | 7.2 | 7.2 | 7.2 |
| 2 People | 15 | 4.7 | 4.7 | 11.9 |
| NR | 280 | 88.1 | 88.1 | 100.0 |
| Total | 318 | 100.0 | 100.0 | |
| Total | 318 | 100.0 | | |

How many people age 36-45 live in your household?

0903277

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|----------|-----------|---------|---------------|--------------------|
| Valid | 1 Person | 45 | 14.2 | 14.2 | 14.2 |
| | 2 People | 56 | 17.6 | 17.6 | 31.8 |
| | NR | 217 | 68.2 | 68.2 | 100.0 |
| | Total | 318 | 100.0 | 100.0 | |
| Total | | 318 | 100.0 | | |

How many people age 46-55 live in your household?

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|----------|-----------|---------|---------------|--------------------|
| Valid | 1 Person | 42 | 13.2 | 13.2 | 13.2 |
| | 2 People | 55 | 17.3 | 17.3 | 30.5 |
| | NR | 221 | 69.5 | 69.5 | 100.0 |
| | Total | 318 | 100.0 | 100.0 | |
| Total | | 318 | 100.0 | | |

How many people age 56-65 live in your household?

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|----------|-----------|---------|---------------|--------------------|
| Valid | 1 Person | 40 | 12.6 | 12.6 | 12.6 |
| | 2 People | 38 | 11.9 | 11.9 | 24.5 |
| | NR | 240 | 75.5 | 75.5 | 100.0 |
| | Total | 318 | 100.0 | 100.0 | |
| Total | | 318 | 100.0 | | |

How many people age 65 or older live in your household?

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|----------|-----------|---------|---------------|--------------------|
| Valid | 1 Person | 39 | 12.3 | 12.3 | 12.3 |
| | 2 People | 28 | 8.8 | 8.8 | 21.1 |
| | NA | 251 | 78.9 | 78.9 | 100.0 |
| | Total | 318 | 100.0 | 100.0 | |
| Total | | 318 | 100.0 | | |

2A. How many children age 18 or less live in your household?

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|--------------|-----------|---------|---------------|--------------------|
| Valid | None | 206 | 64.8 | 64.8 | 64.8 |
| | 1 Child | 49 | 15.4 | 15.4 | 80.2 |
| | 2-3 Children | 60 | 18.9 | 18.9 | 99.1 |
| | 4-5 Children | 3 | .9 | .9 | 100.0 |
| | Total | 318 | 100.0 | 100.0 | |
| Total | | 318 | 100.0 | | |

3. What is the average travel distance from your household to work?

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|-----------------|-----------|---------|---------------|--------------------|
| Valid In Solway | 11 | 3.5 | 3.5 | 3.5 |
| 1-10 Mi. | 55 | 17.3 | 17.3 | 20.8 |
| 11-20 Mi. | 133 | 41.8 | 41.8 | 62.6 |
| 21-30 Mi. | 43 | 13.5 | 13.5 | 76.1 |
| > 30 Mi. | 8 | 2.5 | 2.5 | 78.6 |
| NA | 68 | 21.4 | 21.4 | 100.0 |
| Total | 318 | 100.0 | 100.0 | |
| Total | 318 | 100.0 | | |

4. What should the minimum lot size be for zoning single-family homes?

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|--------------|-----------|---------|---------------|--------------------|
| Valid 1 Acre | 24 | 7.5 | 7.5 | 7.5 |
| 2 Acres | 54 | 17.0 | 17.0 | 24.5 |
| 4.5 Acres | 117 | 36.8 | 36.8 | 61.3 |
| 9 Acres | 99 | 31.1 | 31.1 | 92.5 |
| 17-35 Acres | 11 | 3.5 | 3.5 | 95.9 |
| NA | 13 | 4.1 | 4.1 | 100.0 |
| Total | 318 | 100.0 | 100.0 | |
| Total | 318 | 100.0 | | |

5. In what type of housing unit do you live?

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|----------------|-----------|---------|---------------|--------------------|
| Valid S-F Home | 280 | 88.1 | 88.1 | 88.1 |
| Mobile | 29 | 9.1 | 9.1 | 97.2 |
| Duplex | 3 | .9 | .9 | 98.1 |
| Other | 2 | .6 | .6 | 98.7 |
| NA | 4 | 1.3 | 1.3 | 100.0 |
| Total | 318 | 100.0 | 100.0 | |
| Total | 318 | 100.0 | | |

6. How many bedrooms are in your home?

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|---------------|-----------|---------|---------------|--------------------|
| Valid 1 Bdrm. | 8 | 2.5 | 2.5 | 2.5 |
| 2 Bdrm. | 64 | 20.1 | 20.1 | 22.6 |
| 3 Bdrm. | 183 | 57.5 | 57.5 | 80.2 |
| 4 or More | 58 | 18.2 | 18.2 | 98.4 |
| NA | 5 | 1.6 | 1.6 | 100.0 |
| Total | 318 | 100.0 | 100.0 | |
| Total | 318 | 100.0 | | |

7. Does any member of your household use a form of public transportation?

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| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-----------|-----------|---------|---------------|--------------------|
| Valid | Never | 261 | 82.1 | 82.1 | 82.1 |
| | Sometimes | 24 | 7.5 | 7.5 | 89.6 |
| | Often | 8 | 2.5 | 2.5 | 92.1 |
| | NA | 25 | 7.9 | 7.9 | 100.0 |
| | Total | 318 | 100.0 | 100.0 | |
| Total | | 318 | 100.0 | | |

8. Would anyone in your household use public transportation if service were expanded closer to your home?

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------|-----------|---------|---------------|--------------------|
| Valid | Yes | 67 | 21.1 | 21.1 | 21.1 |
| | Maybe | 65 | 20.4 | 20.4 | 41.5 |
| | No | 175 | 55.0 | 55.0 | 96.5 |
| | NA | 11 | 3.5 | 3.5 | 100.0 |
| | Total | 318 | 100.0 | 100.0 | |
| Total | | 318 | 100.0 | | |

9. What is the employment status of the wage earners in your household?

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-----------|-----------|---------|---------------|--------------------|
| Valid | Full-time | 194 | 61.0 | 61.0 | 61.0 |
| | Part-time | 12 | 3.8 | 3.8 | 64.8 |
| | Self-Emp. | 14 | 4.4 | 4.4 | 69.2 |
| | Retired | 71 | 22.3 | 22.3 | 91.5 |
| | FT & PT | 12 | 3.8 | 3.8 | 95.3 |
| | PT, PT | 1 | .3 | .3 | 95.6 |
| | NA | 14 | 4.4 | 4.4 | 100.0 |
| | Total | 318 | 100.0 | 100.0 | |
| Total | | 318 | 100.0 | | |

10. How many years have you lived in Solway Township?

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|------------|-----------|---------|---------------|--------------------|
| Valid | < 1 Yr. | 8 | 2.5 | 2.5 | 2.5 |
| | 1-10 Yrs. | 53 | 16.7 | 16.7 | 19.2 |
| | 11-30 Yrs. | 78 | 24.5 | 24.5 | 43.7 |
| | 31-50 Yrs. | 146 | 45.9 | 45.9 | 89.6 |
| | > 50 Yrs. | 30 | 9.4 | 9.4 | 99.1 |
| | NA | 3 | .9 | .9 | 100.0 |
| | Total | 318 | 100.0 | 100.0 | |
| Total | | 318 | 100.0 | | |

11. Within what range is your household's total annual income?

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| | Frequency | Percent | Valid Percent | Cumulative Percent |
|------------------|-----------|---------|---------------|--------------------|
| Valid < \$15,000 | 21 | 6.6 | 6.6 | 6.6 |
| \$15-25,000 | 35 | 11.0 | 11.0 | 17.6 |
| \$25-35,000 | 41 | 12.9 | 12.9 | 30.5 |
| \$35-50,000 | 70 | 22.0 | 22.0 | 52.5 |
| \$50-75,000 | 61 | 19.2 | 19.2 | 71.7 |
| > \$75,000 | 31 | 9.7 | 9.7 | 81.4 |
| NA | 59 | 18.6 | 18.6 | 100.0 |
| Total | 318 | 100.0 | 100.0 | |
| Total | 318 | 100.0 | | |

12a. Single family homes are needed in Solway Township:

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------------|-----------|---------|---------------|--------------------|
| Valid Agree | 147 | 46.2 | 46.2 | 46.2 |
| Neutral | 71 | 22.3 | 22.3 | 68.6 |
| Disagree | 26 | 8.2 | 8.2 | 76.7 |
| NA | 74 | 23.3 | 23.3 | 100.0 |
| Total | 318 | 100.0 | 100.0 | |
| Total | 318 | 100.0 | | |

12b. Senior housing is needed in Solway Township:

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------------|-----------|---------|---------------|--------------------|
| Valid Agree | 117 | 36.8 | 36.8 | 36.8 |
| Neutral | 83 | 26.1 | 26.1 | 62.9 |
| Disagree | 48 | 15.1 | 15.1 | 78.0 |
| NA | 70 | 22.0 | 22.0 | 100.0 |
| Total | 318 | 100.0 | 100.0 | |
| Total | 318 | 100.0 | | |

12c. Affordable housing is needed in Solway Township:

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------------|-----------|---------|---------------|--------------------|
| Valid Agree | 99 | 31.1 | 31.1 | 31.1 |
| Neutral | 67 | 21.1 | 21.1 | 52.2 |
| Disagree | 68 | 21.4 | 21.4 | 73.6 |
| NA | 84 | 26.4 | 26.4 | 100.0 |
| Total | 318 | 100.0 | 100.0 | |
| Total | 318 | 100.0 | | |

12d. Family rentals are needed in Solway Township:

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------------|-----------|---------|---------------|--------------------|
| Valid Agree | 36 | 11.3 | 11.3 | 11.3 |
| Neutral | 82 | 25.8 | 25.8 | 37.1 |
| Disagree | 106 | 33.3 | 33.3 | 70.4 |
| NA | 94 | 29.6 | 29.6 | 100.0 |
| Total | 318 | 100.0 | 100.0 | |
| Total | 318 | 100.0 | | |

12e. Mobile homes are needed in Solway Township:

0903277

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|----------|-----------|---------|---------------|--------------------|
| Valid | Agree | 31 | 9.7 | 9.7 | 9.7 |
| | Neutral | 75 | 23.6 | 23.6 | 33.3 |
| | Disagree | 119 | 37.4 | 37.4 | 70.8 |
| | NA | 93 | 29.2 | 29.2 | 100.0 |
| | Total | 318 | 100.0 | 100.0 | |
| Total | | 318 | 100.0 | | |

**14. Please give your opinion about the following aspects of Solway Township:
Are you satisfied, neutral or unsatisfied?**

I am satisfied/unsatisfied with the quality of recreational opportunities:

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------------|-----------|---------|---------------|--------------------|
| Valid | Satisfied | 78 | 24.5 | 24.5 | 24.5 |
| | Neutral | 162 | 50.9 | 50.9 | 75.5 |
| | Unsatisfied | 36 | 11.3 | 11.3 | 86.8 |
| | NA | 42 | 13.2 | 13.2 | 100.0 |
| | Total | 318 | 100.0 | 100.0 | |
| Total | | 318 | 100.0 | | |

I am satisfied/unsatisfied with the quality of drinking water:

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------------|-----------|---------|---------------|--------------------|
| Valid | Satisfied | 177 | 55.7 | 55.7 | 55.7 |
| | Neutral | 98 | 30.8 | 30.8 | 86.5 |
| | Unsatisfied | 26 | 8.2 | 8.2 | 94.7 |
| | NA | 17 | 5.3 | 5.3 | 100.0 |
| | Total | 318 | 100.0 | 100.0 | |
| Total | | 318 | 100.0 | | |

I am satisfied/unsatisfied with the electric quality and service:

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------------|-----------|---------|---------------|--------------------|
| Valid | Satisfied | 166 | 52.2 | 52.2 | 52.2 |
| | Neutral | 88 | 27.7 | 27.7 | 79.9 |
| | Unsatisfied | 54 | 17.0 | 17.0 | 96.9 |
| | NA | 10 | 3.1 | 3.1 | 100.0 |
| | Total | 318 | 100.0 | 100.0 | |
| Total | | 318 | 100.0 | | |

I am satisfied/unsatisfied with the fire department service:

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| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------------|-----------|---------|---------------|--------------------|
| Valid | Satisfied | 205 | 64.5 | 64.5 | 64.5 |
| | Neutral | 86 | 27.0 | 27.0 | 91.5 |
| | Unsatisfied | 7 | 2.2 | 2.2 | 93.7 |
| | NA | 20 | 6.3 | 6.3 | 100.0 |
| | Total | 318 | 100.0 | 100.0 | |
| Total | | 318 | 100.0 | | |

I am satisfied/unsatisfied with law enforcement service:

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------------|-----------|---------|---------------|--------------------|
| Valid | Satisfied | 95 | 29.9 | 29.9 | 29.9 |
| | Neutral | 142 | 44.7 | 44.7 | 74.5 |
| | Unsatisfied | 48 | 15.1 | 15.1 | 89.6 |
| | NA | 33 | 10.4 | 10.4 | 100.0 |
| | Total | 318 | 100.0 | 100.0 | |
| Total | | 318 | 100.0 | | |

I am satisfied/unsatisfied with ambulance service:

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------------|-----------|---------|---------------|--------------------|
| Valid | Satisfied | 91 | 28.6 | 28.6 | 28.6 |
| | Neutral | 146 | 45.9 | 45.9 | 74.5 |
| | Unsatisfied | 18 | 5.7 | 5.7 | 80.2 |
| | NA | 63 | 19.8 | 19.8 | 100.0 |
| | Total | 318 | 100.0 | 100.0 | |
| Total | | 318 | 100.0 | | |

I am satisfied/unsatisfied with zoning ordinances:

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------------|-----------|---------|---------------|--------------------|
| Valid | Satisfied | 61 | 19.2 | 19.2 | 19.2 |
| | Neutral | 152 | 47.8 | 47.8 | 67.0 |
| | Unsatisfied | 41 | 12.9 | 12.9 | 79.9 |
| | NA | 64 | 20.1 | 20.1 | 100.0 |
| | Total | 318 | 100.0 | 100.0 | |
| Total | | 318 | 100.0 | | |

I am satisfied/unsatisfied with the enforcement of zoning ordinances:

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------------|-----------|---------|---------------|--------------------|
| Valid | Satisfied | 56 | 17.6 | 17.6 | 17.6 |
| | Neutral | 155 | 48.7 | 48.7 | 66.4 |
| | Unsatisfied | 34 | 10.7 | 10.7 | 77.0 |
| | NA | 73 | 23.0 | 23.0 | 100.0 |
| | Total | 318 | 100.0 | 100.0 | |
| Total | | 318 | 100.0 | | |

I am satisfied/unsatisfied with the enforcement of septic codes:

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------------|-----------|---------|---------------|--------------------|
| Valid | Satisfied | 88 | 27.7 | 27.7 | 27.7 |
| | Neutral | 145 | 45.6 | 45.6 | 73.3 |
| | Unsatisfied | 22 | 6.9 | 6.9 | 80.2 |
| | NA | 63 | 19.8 | 19.8 | 100.0 |
| | Total | 318 | 100.0 | 100.0 | |
| Total | | 318 | 100.0 | | |

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I am satisfied/unsatisfied with the quality of K-6 education:

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------------|-----------|---------|---------------|--------------------|
| Valid | Satisfied | 88 | 27.7 | 27.7 | 27.7 |
| | Neutral | 100 | 31.4 | 31.4 | 59.1 |
| | Unsatisfied | 54 | 17.0 | 17.0 | 76.1 |
| | NA | 76 | 23.9 | 23.9 | 100.0 |
| | Total | 318 | 100.0 | 100.0 | |
| Total | | 318 | 100.0 | | |

I am satisfied/unsatisfied with the quality of education in the middle and high schools:

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------------|-----------|---------|---------------|--------------------|
| Valid | Satisfied | 98 | 30.8 | 30.8 | 30.8 |
| | Neutral | 113 | 35.5 | 35.5 | 66.4 |
| | Unsatisfied | 30 | 9.4 | 9.4 | 75.8 |
| | NA | 77 | 24.2 | 24.2 | 100.0 |
| | Total | 318 | 100.0 | 100.0 | |
| Total | | 318 | 100.0 | | |

I am satisfied/unsatisfied with the quality of area educational options:

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------------|-----------|---------|---------------|--------------------|
| Valid | Satisfied | 91 | 28.6 | 28.6 | 28.6 |
| | Neutral | 113 | 35.5 | 35.5 | 64.2 |
| | Unsatisfied | 35 | 11.0 | 11.0 | 75.2 |
| | NA | 79 | 24.8 | 24.8 | 100.0 |
| | Total | 318 | 100.0 | 100.0 | |
| Total | | 318 | 100.0 | | |

14x. Please indicate your electric provider:

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------------|-----------|---------|---------------|--------------------|
| Valid | MN Power | 147 | 46.2 | 46.2 | 46.2 |
| | Lk. Country | 160 | 50.3 | 50.3 | 96.5 |
| | NA | 11 | 3.5 | 3.5 | 100.0 |
| | Total | 318 | 100.0 | 100.0 | |
| Total | | 318 | 100.0 | | |

Please provide your opinion about TRANSPORTATION ISSUES in Solway Township:

Better shoulders are needed in Solway Township:

0903277

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|-----------|-----------|---------|---------------|--------------------|
| Valid Yes | 148 | 46.5 | 46.5 | 46.5 |
| Maybe | 106 | 33.3 | 33.3 | 79.9 |
| No | 29 | 9.1 | 9.1 | 89.0 |
| NA | 35 | 11.0 | 11.0 | 100.0 |
| Total | 318 | 100.0 | 100.0 | |
| Total | 318 | 100.0 | | |

Paving of gravel roads is needed in Solway Township:

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|-----------|-----------|---------|---------------|--------------------|
| Valid Yes | 116 | 36.5 | 36.5 | 36.5 |
| Maybe | 117 | 36.8 | 36.8 | 73.3 |
| No | 62 | 19.5 | 19.5 | 92.8 |
| NA | 23 | 7.2 | 7.2 | 100.0 |
| Total | 318 | 100.0 | 100.0 | |
| Total | 318 | 100.0 | | |

Walking/biking lanes are needed in Solway Township:

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|-----------|-----------|---------|---------------|--------------------|
| Valid Yes | 108 | 34.0 | 34.0 | 34.0 |
| Maybe | 101 | 31.8 | 31.8 | 65.7 |
| No | 71 | 22.3 | 22.3 | 88.1 |
| NA | 38 | 11.9 | 11.9 | 100.0 |
| Total | 318 | 100.0 | 100.0 | |
| Total | 318 | 100.0 | | |

More roads are needed in Solway Township:

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|-----------|-----------|---------|---------------|--------------------|
| Valid Yes | 3 | .9 | .9 | .9 |
| Maybe | 53 | 16.7 | 16.7 | 17.6 |
| No | 199 | 62.6 | 62.6 | 80.2 |
| NA | 63 | 19.8 | 19.8 | 100.0 |
| Total | 318 | 100.0 | 100.0 | |
| Total | 318 | 100.0 | | |

15. What are your general feelings about Solway Township?

Increased population is desirable:

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------------|-----------|---------|---------------|--------------------|
| Valid Agree | 61 | 19.2 | 19.2 | 19.2 |
| Neutral | 100 | 31.4 | 31.4 | 50.6 |
| Disagree | 146 | 45.9 | 45.9 | 96.5 |
| NA | 11 | 3.5 | 3.5 | 100.0 |
| Total | 318 | 100.0 | 100.0 | |
| Total | 318 | 100.0 | | |

The condition of local roads is:

0903277

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---------|----------------|-----------|---------|---------------|--------------------|
| Valid | Good | 48 | 15.1 | 15.1 | 15.1 |
| | Average | 154 | 48.4 | 48.6 | 63.7 |
| | Poor | 106 | 33.3 | 33.4 | 97.2 |
| | NA | 9 | 2.8 | 2.8 | 100.0 |
| | Total | 317 | 99.7 | 100.0 | |
| Missing | System Missing | 1 | .3 | | |
| | Total | 1 | .3 | | |
| Total | | 318 | 100.0 | | |

The condition of the road I live on is:

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|---------|-----------|---------|---------------|--------------------|
| Valid | Good | 77 | 24.2 | 24.2 | 24.2 |
| | Average | 115 | 36.2 | 36.2 | 60.4 |
| | Poor | 123 | 38.7 | 38.7 | 99.1 |
| | NA | 3 | .9 | .9 | 100.0 |
| | Total | 318 | 100.0 | 100.0 | |
| Total | | 318 | 100.0 | | |

Road-railway intersection safety is:

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|---------|-----------|---------|---------------|--------------------|
| Valid | Good | 95 | 29.9 | 29.9 | 29.9 |
| | Average | 164 | 51.6 | 51.6 | 81.4 |
| | Poor | 39 | 12.3 | 12.3 | 93.7 |
| | NA | 20 | 6.3 | 6.3 | 100.0 |
| | Total | 318 | 100.0 | 100.0 | |
| Total | | 318 | 100.0 | | |

Please give your opinion about the following transportation improvements needed in Solway Township: RANKED

Better upkeep of paved roads is needed in Solway Township:

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------|-----------|---------|---------------|--------------------|
| Valid | Yes | 179 | 56.3 | 56.3 | 56.3 |
| | Maybe | 97 | 30.5 | 30.5 | 86.8 |
| | No | 15 | 4.7 | 4.7 | 91.5 |
| | NA | 27 | 8.5 | 8.5 | 100.0 |
| | Total | 318 | 100.0 | 100.0 | |
| Total | | 318 | 100.0 | | |

Solway Township should strive to become a city:

0903277

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|----------|-----------|---------|---------------|--------------------|
| Valid | Agree | 15 | 4.7 | 4.7 | 4.7 |
| | Neutral | 30 | 9.4 | 9.4 | 14.2 |
| | Disagree | 259 | 81.4 | 81.4 | 95.6 |
| | NA | 14 | 4.4 | 4.4 | 100.0 |
| | Total | 318 | 100.0 | 100.0 | |
| Total | | 318 | 100.0 | | |

Commercial areas should be established and developed:

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|----------|-----------|---------|---------------|--------------------|
| Valid | Agree | 90 | 28.3 | 28.3 | 28.3 |
| | Neutral | 58 | 18.2 | 18.2 | 46.5 |
| | Disagree | 161 | 50.6 | 50.6 | 97.2 |
| | NA | 9 | 2.8 | 2.8 | 100.0 |
| | Total | 318 | 100.0 | 100.0 | |
| Total | | 318 | 100.0 | | |

Industrial areas should be established and developed:

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|----------|-----------|---------|---------------|--------------------|
| Valid | Agree | 65 | 20.4 | 20.4 | 20.4 |
| | Neutral | 58 | 18.2 | 18.2 | 38.7 |
| | Disagree | 184 | 57.9 | 57.9 | 96.5 |
| | NA | 11 | 3.5 | 3.5 | 100.0 |
| | Total | 318 | 100.0 | 100.0 | |
| Total | | 318 | 100.0 | | |

Recreational facilities should be built and expanded in the future:

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|----------|-----------|---------|---------------|--------------------|
| Valid | Agree | 157 | 49.4 | 49.4 | 49.4 |
| | Neutral | 105 | 33.0 | 33.0 | 82.4 |
| | Disagree | 46 | 14.5 | 14.5 | 96.9 |
| | NA | 10 | 3.1 | 3.1 | 100.0 |
| | Total | 318 | 100.0 | 100.0 | |
| Total | | 318 | 100.0 | | |

Some hunting restrictions are needed:

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|----------|-----------|---------|---------------|--------------------|
| Valid | Agree | 120 | 37.7 | 37.7 | 37.7 |
| | Neutral | 66 | 20.8 | 20.8 | 58.5 |
| | Disagree | 118 | 37.1 | 37.1 | 95.6 |
| | NA | 14 | 4.4 | 4.4 | 100.0 |
| | Total | 318 | 100.0 | 100.0 | |
| Total | | 318 | 100.0 | | |

Restrictions on off-road and recreational vehicle use are needed:

0903277

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|----------|-----------|---------|---------------|--------------------|
| Valid | Agree | 130 | 40.9 | 40.9 | 40.9 |
| | Neutral | 76 | 23.9 | 23.9 | 64.8 |
| | Disagree | 99 | 31.1 | 31.1 | 95.9 |
| | NA | 13 | 4.1 | 4.1 | 100.0 |
| | Total | 318 | 100.0 | 100.0 | |
| Total | | 318 | 100.0 | | |

Farming and ranching developments should be promoted in Solway:

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|----------|-----------|---------|---------------|--------------------|
| Valid | Agree | 179 | 56.3 | 56.3 | 56.3 |
| | Neutral | 96 | 30.2 | 30.2 | 86.5 |
| | Disagree | 32 | 10.1 | 10.1 | 96.5 |
| | NA | 11 | 3.5 | 3.5 | 100.0 |
| | Total | 318 | 100.0 | 100.0 | |
| Total | | 318 | 100.0 | | |

Overall, housing appearances are good:

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|----------|-----------|---------|---------------|--------------------|
| Valid | Agree | 215 | 67.6 | 67.6 | 67.6 |
| | Neutral | 62 | 19.5 | 19.5 | 87.1 |
| | Disagree | 30 | 9.4 | 9.4 | 96.5 |
| | NA | 11 | 3.5 | 3.5 | 100.0 |
| | Total | 318 | 100.0 | 100.0 | |
| Total | | 318 | 100.0 | | |

Overall, property appearances are good:

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|----------|-----------|---------|---------------|--------------------|
| Valid | Agree | 216 | 67.9 | 67.9 | 67.9 |
| | Neutral | 66 | 20.8 | 20.8 | 88.7 |
| | Disagree | 25 | 7.9 | 7.9 | 96.5 |
| | NA | 11 | 3.5 | 3.5 | 100.0 |
| | Total | 318 | 100.0 | 100.0 | |
| Total | | 318 | 100.0 | | |

New housing should be encouraged:

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|----------|-----------|---------|---------------|--------------------|
| Valid | Agree | 118 | 37.1 | 37.1 | 37.1 |
| | Neutral | 100 | 31.4 | 31.4 | 68.6 |
| | Disagree | 90 | 28.3 | 28.3 | 96.9 |
| | NA | 10 | 3.1 | 3.1 | 100.0 |
| | Total | 318 | 100.0 | 100.0 | |
| Total | | 318 | 100.0 | | |

**Effort should be made with township funds to reclaim gravel pits
on private property:**

0903277

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|----------|-----------|---------|------------------|-----------------------|
| Valid | Agree | 61 | 19.2 | 19.2 | 19.2 |
| | Neutral | 91 | 28.6 | 28.6 | 47.8 |
| | Disagree | 141 | 44.3 | 44.3 | 92.1 |
| | NA | 25 | 7.9 | 7.9 | 100.0 |
| | Total | 318 | 100.0 | 100.0 | |
| Total | | 318 | 100.0 | | |

**Effort should be made with township funds to reclaim dump sites
on private property:**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---------|----------|-----------|---------|------------------|-----------------------|
| Valid | Agree | 64 | 20.1 | 20.2 | 20.2 |
| | Neutral | 83 | 26.1 | 26.2 | 46.4 |
| | Disagree | 141 | 44.3 | 44.5 | 90.9 |
| | NA | 29 | 9.1 | 9.1 | 100.0 |
| | Total | 317 | 99.7 | 100.0 | |
| Missing | System | | | | |
| | Missing | 1 | .3 | | |
| Total | | 1 | .3 | | |
| Total | | 318 | 100.0 | | |

**Solway Township should encourage utility development in
corridors:**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|----------|-----------|---------|------------------|-----------------------|
| Valid | Agree | 74 | 23.3 | 23.3 | 23.3 |
| | Neutral | 94 | 29.6 | 29.6 | 52.8 |
| | Disagree | 129 | 40.6 | 40.6 | 93.4 |
| | NA | 21 | 6.6 | 6.6 | 100.0 |
| | Total | 318 | 100.0 | 100.0 | |
| Total | | 318 | 100.0 | | |

Solway Township should discourage all new landfills:

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|----------|-----------|---------|------------------|-----------------------|
| Valid | Agree | 246 | 77.4 | 77.4 | 77.4 |
| | Neutral | 38 | 11.9 | 11.9 | 89.3 |
| | Disagree | 26 | 8.2 | 8.2 | 97.5 |
| | NA | 8 | 2.5 | 2.5 | 100.0 |
| | Total | 318 | 100.0 | 100.0 | |
| Total | | 318 | 100.0 | | |

Forest management should be encouraged:

0903277

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|----------|-----------|---------|---------------|--------------------|
| Valid | Agree | 218 | 68.6 | 68.6 | 68.6 |
| | Neutral | 70 | 22.0 | 22.0 | 90.6 |
| | Disagree | 17 | 5.3 | 5.3 | 95.9 |
| | NA | 13 | 4.1 | 4.1 | 100.0 |
| | Total | 318 | 100.0 | 100.0 | |
| Total | | 318 | 100.0 | | |

A need for daycare exists in Solway Township:

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|----------|-----------|---------|---------------|--------------------|
| Valid | Agree | 93 | 29.2 | 29.2 | 29.2 |
| | Neutral | 142 | 44.7 | 44.7 | 73.9 |
| | Disagree | 32 | 10.1 | 10.1 | 84.0 |
| | NA | 51 | 16.0 | 16.0 | 100.0 |
| | Total | 318 | 100.0 | 100.0 | |
| Total | | 318 | 100.0 | | |

Individual septic systems are adequate for the future of Solway Township:

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---------|----------------|-----------|---------|---------------|--------------------|
| Valid | Agree | 200 | 62.9 | 63.1 | 63.1 |
| | Neutral | 80 | 25.2 | 25.2 | 88.3 |
| | Disagree | 22 | 6.9 | 6.9 | 95.3 |
| | NA | 15 | 4.7 | 4.7 | 100.0 |
| | Total | 317 | 99.7 | 100.0 | |
| Missing | System Missing | 1 | .3 | | |
| | Total | 1 | .3 | | |
| Total | | 318 | 100.0 | | |

Solway should finance the enforcement of its own zoning and planning:

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|----------|-----------|---------|---------------|--------------------|
| Valid | Agree | 96 | 30.2 | 30.2 | 30.2 |
| | Neutral | 127 | 39.9 | 39.9 | 70.1 |
| | Disagree | 66 | 20.8 | 20.8 | 90.9 |
| | NA | 29 | 9.1 | 9.1 | 100.0 |
| | Total | 318 | 100.0 | 100.0 | |
| Total | | 318 | 100.0 | | |

Restrictions on cell phone towers are needed:

0903277

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|----------|-----------|---------|------------------|-----------------------|
| Valid | Agree | 108 | 34.0 | 34.0 | 34.0 |
| | Neutral | 122 | 38.4 | 38.4 | 72.3 |
| | Disagree | 63 | 19.8 | 19.8 | 92.1 |
| | NA | 25 | 7.9 | 7.9 | 100.0 |
| | Total | 318 | 100.0 | 100.0 | |
| Total | | 318 | 100.0 | | |

13. PLEASE DESCRIBE YOUR VISION OF SOLWAY TOWNSHIP 10 YEARS FROM NOW.

- I just want to thank all of you young people who have done so much work to make our Solway Township so beautiful. It has improved greatly. I love our Town Hall and also the Fire Hall. Keep up the good work.
- Solway has come a long way on improvements and organization. Not many people like to be on committees, so we applaud those who do give of their time and energy. Don't know about in 10 years; our energy and time is with our church. Sorry.
- We should encourage the town board to increase the Board of Supervisors to be increased to 5 for better representation of the residents!!!
- 2 more retail outlets and 1 or 2 warehouse or factory facilities. A restaurant would be nice. I believe more people will build homes here and possibly a low-rent complex as well. I feel it's time for Solway to grow.
- A K-6 school is needed! We need something besides a town hall and a tavern: laundromat, car wash, grocery store, movie theater, and amusement park.
- Businesses along busy intersections, multi-family dwellings near businesses, single-family dwellings in more remote parts of the township, no more gravel pits, a township tax on gravel pits (this is a non-renewable resource) with the money going to sewer line extension someday in township.
- Encourage business and industry development. Encourage new housing development and residents to free up land for future development. Develop off road recreational trails so that people don't need to use private property. Improve existing roadways – priority!
- I hope development stays, especially home building.
- I see Solway becoming a suburban area, and when the Maple Grove and Morris Thomas Roads are redone, they should have water, sewer, and other utilities installed at the same time!
- I would hope that there will be a change from the narrow and short-sighted attitudes, that modest population growth be welcomed (after all, most of us have children). With this comes planning for public services such as the fire department, police, roads, parks, etc. How do we hope to grow when many people and businesses look down upon us because of such anti-social behavior?
- I would like to see a few businesses open up to give our children an opportunity to hopefully stay and work in this area.
- I would like to see more businesses in our area so that it can grow and prosper. Maybe a large trailer park for many residents to live in.
- I would like to see some more small businesses develop in this area as well as some connections to snowmobile or nature trails.
- Increased population with more mobile homes and single family dwellings.
- Like Hermantown.
- More people to increase tax base.
- New homes and growth; people are moving into the country suburbs. No gravel pits should be allowed within 1 mile of residential homes.
- Newer fire trucks, more recreational facilities and opportunities within the township, new rural elementary school, more single homes (5 acre lot sizes), senior housing and care facilities, more commercial stores and services locally, improve the paved roads and put in shoulders
- Population increase.

- Solway needs to grow; we need to encourage the families and businesses that we have to become ready to expand and invite growth. City type, septic systems, water and gas systems, more multiple housing apartments and senior housing, a community center, and police protection.
- Solway seems to be growing; the new fire hall and improvements to the town hall are highly commendable. It is good to see Solway grow.
- Taxes are too high for no comforts of city living; no city water or septic; no street lights, no buses, and no police patrolling.
- High taxes are making it hard for seniors to keep their property.
- It's very important to keep taxes down so fixed income families can still live within the township.
- Keep the taxes down and use the tax money to pave roads.
- We are taxing people out of our district who are on fixed income or retired.
- Demolishing the Munger School was crazy!
- It would have been a lot better vision if the people would have known and had a chance to vote on Solway Township taking over Munger School. No; the board decided that we, the Township, didn't want it. What should have been a historical moment wasn't.
- Re-open Munger School.
- Zoning should be changed to allow for sale of smaller land plots for new home construction.
- Would have liked to see Munger School turned into something like senior housing or something instead of destroying it. What a waste!
- A nice neighborhood to live in and raise a family – not overly populated. Just nice single family dwellings with fair lot sizes, so you don't have to see your neighbor's house directly next to yours. A good place to live. People that live in Solway should realize that it is 20 minutes to a shopping center and a busy city and that that's a good thing.
- A rural community.
- An unspoiled rural community where you can still enjoy nature without traffic, noise, crime, trash, or vandalism.
- As fuel and transportation costs rise, rural living will be less attractive. Therefore, this area should remain rural - small farm in order to provide citizens additional means of income and subsistence in the future.
- City folks moving in to our town.
- Continue to be the wonderful small community with the simple pleasures and the gift of rural life, yet keep access to small cities like Cloquet for reliable small business, or the diversity of Duluth. More social events are needed. Need to tax gravel.
- Convenient to Duluth, yet still rural; hope that in its expansion the safety of environment, water, and septic are foremost in the development plans. Possible farming growth through huge greenhouse farming; all year growth; possible township involvement as income source and employer.
- Country living. Quiet. That's why we're here.
- Don't need a new soccer field.
- Hope it stays the same, as country should be. Not overly populated.
- Hopefully a small, close-knit community where everyone knows everyone. We like the quiet rural area; that is why we moved here. Hopefully we will someday see a new school for our children.
- Hopefully it will remain a quiet rural setting and not try to compete with neighboring Hermantown; we must work to keep our tax base low and thus offer affordable living.
- I am more than happy with the township now. More people brings higher potential for more crime.

- I believe that we need to remain rural and not become a Hermantown. People enjoy not having to live on the top of each other and being able to enjoy their property because they can afford to live in this area.
- I feel that Solway TWP should keep the country living style it is today. Not building home developments and big businesses would keep it this way.
- I hope to still live in a quiet community where people mind their own business, crime is low, people can still hunt in their backyards, and you still know your neighbors.
- I like the rural living in Solway and would like to see it stay this way, but since we are located so close to Duluth, I know it's going to grow a lot in the future and soon be house upon house. Then it will be time for us to move.
- I think it will have more resort-like business or a bit of Miller Mall type expansion – but I hope not, or I'll have to move away. We like the quiet.
- I would like it to stay a nice and quiet township. Let people live their country lives. Leave the rules and regulations in the city. If people don't want to be in the wilderness and around animals and wildlife, then stay in the city.
- I would like Solway to remain much like it is today. The urban rush seems to invade outlying areas eventually, but we move on to get away from that. Maybe to see more recreational opportunities - fishing, nature trails - the solitude is attractive to me. The fenced in area by the fire hall seems to be ideal for tennis courts.
- I would like to see Solway remain as a rural area. If Solway becomes too restrictive it will lose the country style of living which we now have and will be on its way to becoming a city.
- I would like to see Solway stay rural. The minimum lot size should be at least nine acres. Also with all the new regulations like these septic laws and zoning ordinances, it reminds me of a communist state more and more every day. In 10 years I would hate to see the word "red" in front of the word Solway.
- I would like to see Solway Township remain rural.
- If the Duluth area does not have new industry and businesses, I see very little growth to this area.
- If things continue to go as they are now, Munger will be like Hermantown. We live here because it's country living, not city living. City living is not a quality way of living. Too many homes are being built and most of them are expensive, forcing taxes up and older people out of the homes they built here back in the 30's and 40's. Most of these new homes are city people wanting to live in the country; then once they get here they try to turn it into a city, so they should stay where they are!
- If you keep it as a residential township and keep business out of residential areas, it will be fine. Some businesses are operating now without permits in the St. Louis County area close to Solway's borders in residential areas.
- I'm afraid the Proctor School District will levy, bond, or tax people out of the township. It is out of touch or doesn't care about rural money concerns. I know 2 families that didn't move to Solway because of millions the school district wants. We can't afford it.
- Keep it a rural residential area.
- Keep it rural with 9 or more acre lots.
- Keep the Solway Township rural – for privacy. That's why I moved here.
- Keep this nice township the way it is now.
- Left as is!
- Less development, maintain rural status.
- Like it the way it is!
- Like to see it remain a place where people can have cows and horses if they want and a place where seniors could stay in the area if they chose to.

- No more gravel pits or landfills, no housing developments, no additional hunting restrictions, keep Solway residents updated on prospective changes to any laws or ordinances by monthly newsletter.
- Not Hermantown! Rural family living. Multi-generational.
- Pretty much the same as the present.
- Rural -- no more houses or soccer fields.
- Rural with large lot requirements per home (10+ acres). Please, no public water or sewer; the quality of the water and sewer is more than adequate now if lot requirements are enforced.
- Same as today.
- Same.
- Slow, deliberate, well-planned development.
- Solway should remain "country" with wise use of natural resources and wildlife. Solway does not need apartments, big businesses, or industry. We need small farms and a sensible use for old gravel pits.
- Solway should remain a rural area with a good distance between houses.
- Solway should strive to retain its rural identity, with farms, ranches, and single family homes.
- Still a nice, quiet rural community - nothing like Hermantown. It would be nice to have ski or nature trails.
- The newcomers will have turned it into another Hermantown. The cost of taxes and new services will drive some old timers out.
- The same - I like the rural atmosphere, the privacy, knowing my neighbors, and the limited amount of traffic.
- The same as now.
- To keep it quiet and rural; not like Hermantown. A place kids can grow up without the city taking over!
- To stay as a rural area.
- We live here because it is a rural area. People should move back to the city if they want all kinds of development. There should be no deer hunting here. The homes are too close together. The survey says nothing about garbage service...
- We live in a "country setting" because we don't want to live in a city environment. More housing and business would delete the "country" flavor.
- We moved here because, for us, Solway is ideal, being rural with a sense of community while also being close to conveniences. Since moving here, we would like to make this our permanent home. After seeing the expansion in Hermantown and the encroachment toward Solway, we are already worried that we may have to make another move in the future to a community that is what Solway Township is now.
- We need to remain rural. That is why I live here. More people, more taxes, more services, and more complications are not what we need.
- We want our township to remain rural.
- We want Solway to remain as it is; maintain the privacy, peacefulness and rural atmosphere. We don't want our township developed like Hermantown and other city communities.
- We would like to see it stay as it is -- a small rural country and farm community.
- We would like to see it used as single family units with 10 acre sites. We want rural -- that is the reason we bought in Solway. We do not want another Esko, with small lot sizes and a village atmosphere.
- We're hoping that Solway will remain the same and that not many more homes will be built in our area. We moved here for the rural living and wish it to continue.
- What right do I have to tell someone that their land needs to be cleaned up if they own it and pay taxes? Why do we want Solway to become a city to pay higher taxes, to be regulated? If I wanted to live in the city, I would move! If the people that move here want Solway to become a city, they should move.

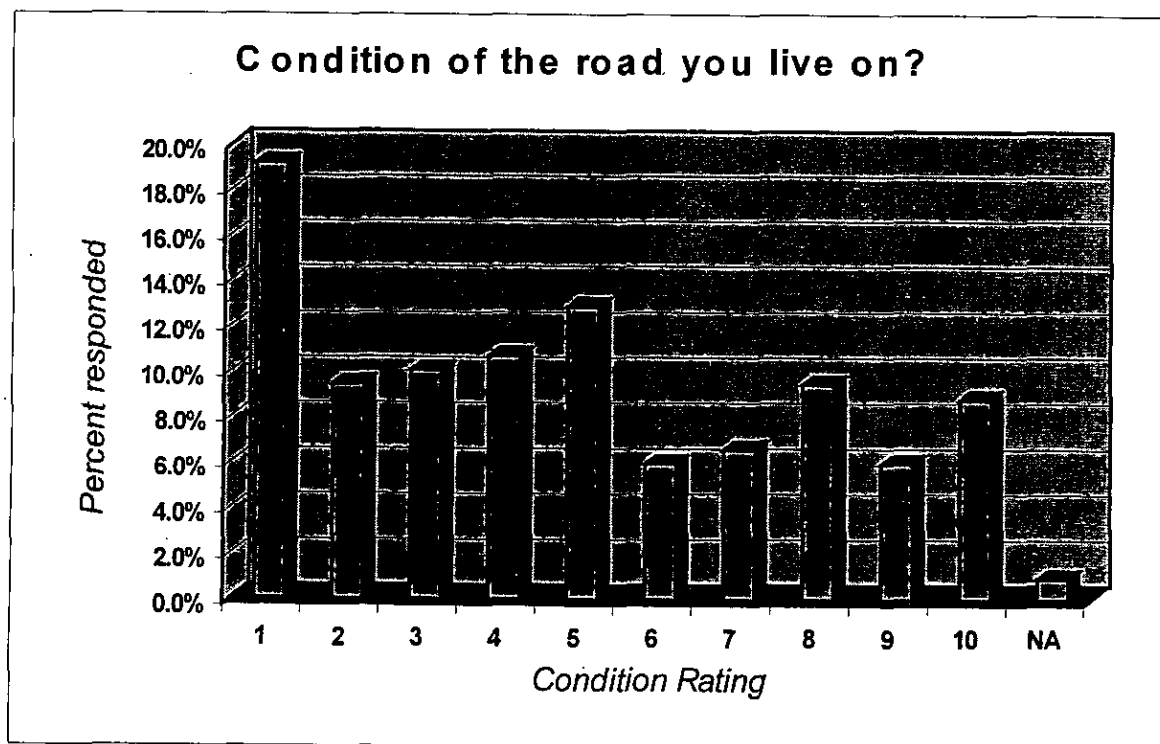
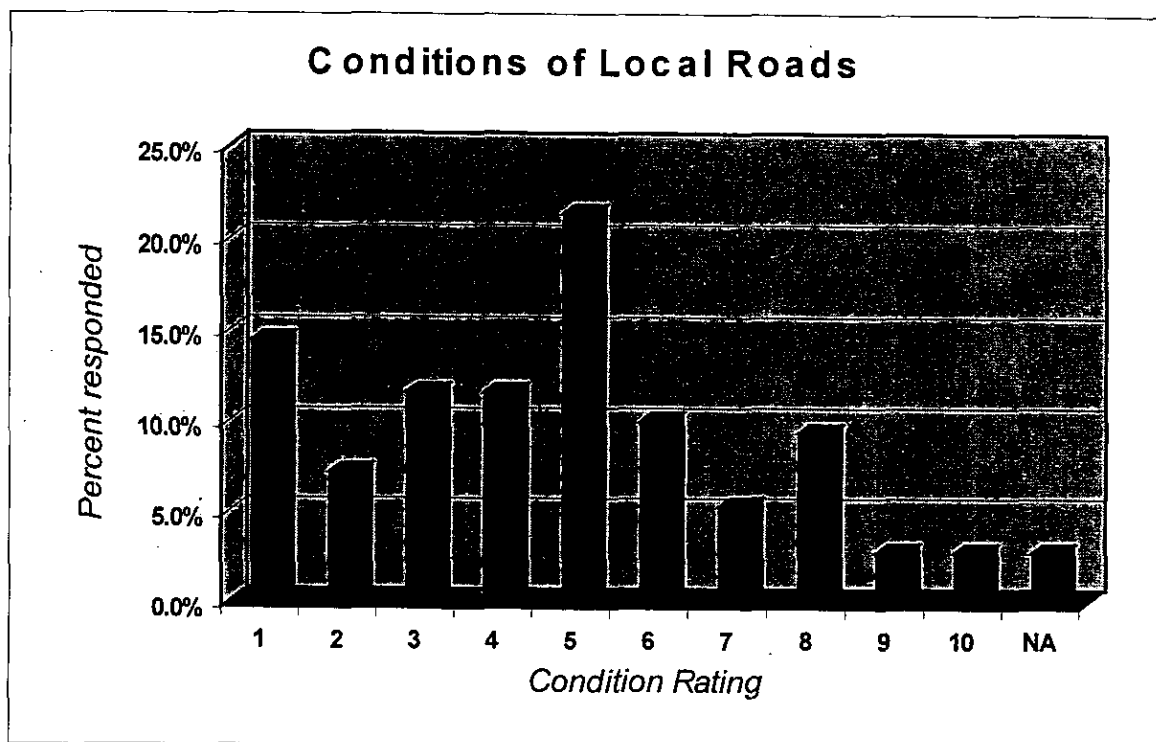
- Where people take pride in their property and are willing to drive for schools, work, and social events; where folks don't try to make it a suburb with city conveniences; country and quiet lovers.
- Would like to see it stay rural and stay with large lot sizes. Encourage cleaning up of roadside and private property.
- Would not expect many changes, which would be a plus.
- A happy, quiet, and clean community with no dogs or horses running around loose in our yards. Also, no all night "barking parties". Smoother, safer roads and highways with no more "doubles passing triples" on our way to work. We really need Highway 2 policed better.
- A nice quiet and healthy place to live!
- A rural area with well-maintained homes.
- Affordable tax base to be able to live in Solway, a community that is more people friendly and involved, a walkway, Hwy 2 needs four lanes or better turn off areas and wider shoulders for safety.
- All the roads paved, some type of public transportation, sewer & water would be nice if possible!
- Because of the lack of insight of the Town Board and the Planning Commission and Comprehensive Planning Group, Solway Township will probably be overcrowded with industrial and commercial development. There are too many junky cars, etc. in fields and yards in Solway Township.
- Better recreational opportunities for children and adults, better educational facilities (school buildings and programs), summer programs for children (Latchkey and field trips), walking lanes on Solway and Maple Grove Roads.
- Building lot size: in some cases a two acre site is just as suitable as a larger parcel depending on elevation, water table, proximity to swamp, creeks, etc. Also, encourage building as close to road as possible, disturbing fewer natural and wooded areas. It's better to have smaller lots close to main roads than large lots with houses in the rear-most part of the lot disturbing wildlife and habitat.
- Do something about the speeding on the roads.
- Except for road repair, we would like to see Solway stay as it is and are satisfied with it as it is. Note: we do not want Solway marked as a City!
- Grocery store, public transportation, better roads, better police and fire protection, and lower taxes!
- I don't see much change, except for maybe more housing going up.
- Hopefully there will be no more trucks hauling gravel, dirt, etc. They are loud and have ruined our brand new garage floor slab. I hope it's quiet. I don't want to see any houses being built like in Hermantown. Hermantown is crowded now. I like woods and open space. In ten years, I hope I am more proud to live in Solway; right now I'm embarrassed and I feel like I live in a ghetto township.
- I moved into Solway to live in the country. I hope it is still country in ten years. Progress is not always good. We do not need to be like Hermantown. I hope roads will be upgraded and all but low-use roads paved.
- I would like it to stay mostly the same. I think the County should fix their roads. I don't want it to become crowded with houses and people, but there's room for more housing if people want it.
- I would like to see Solway remain as rural as possible. I am not opposed to new homes – just not homes squeezed in 4 to an acre. Businesses that are compatible with the area would be nice also. Things that happen, like the "stealing" of Munger School just because the Proctor School District prefers to take all funds and put them into their town's schools, is wrong. We shouldn't be punished for wanting to preserve our way of life.

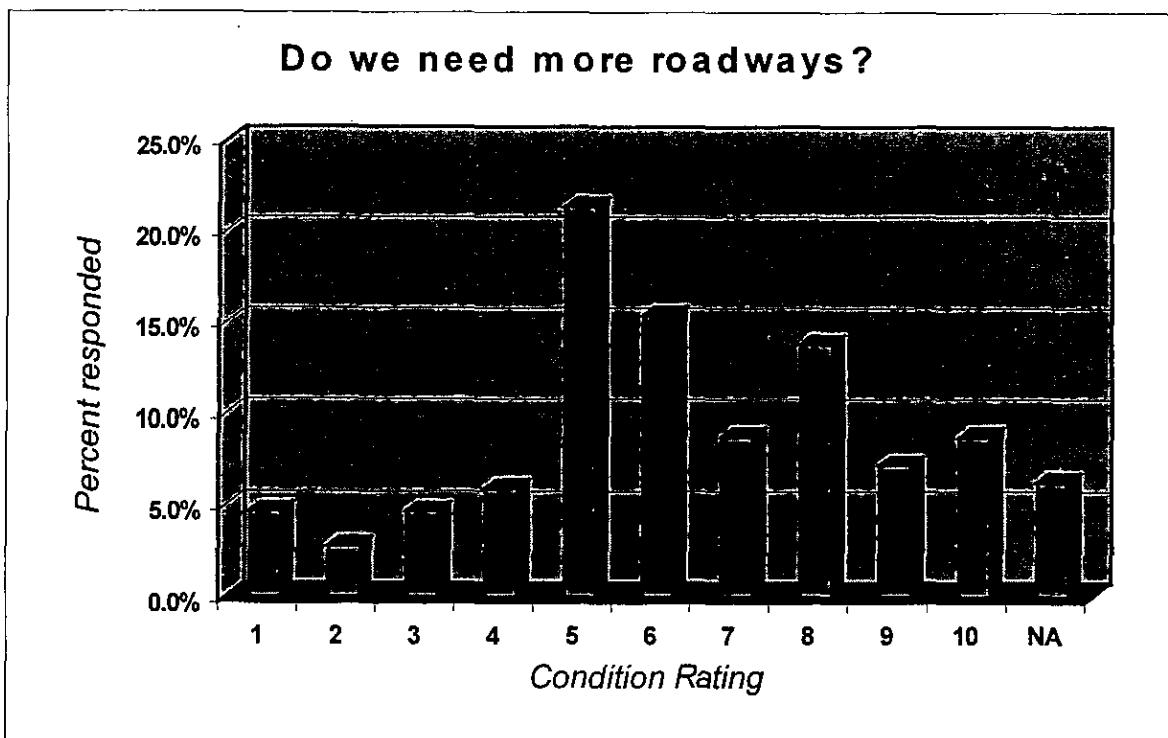
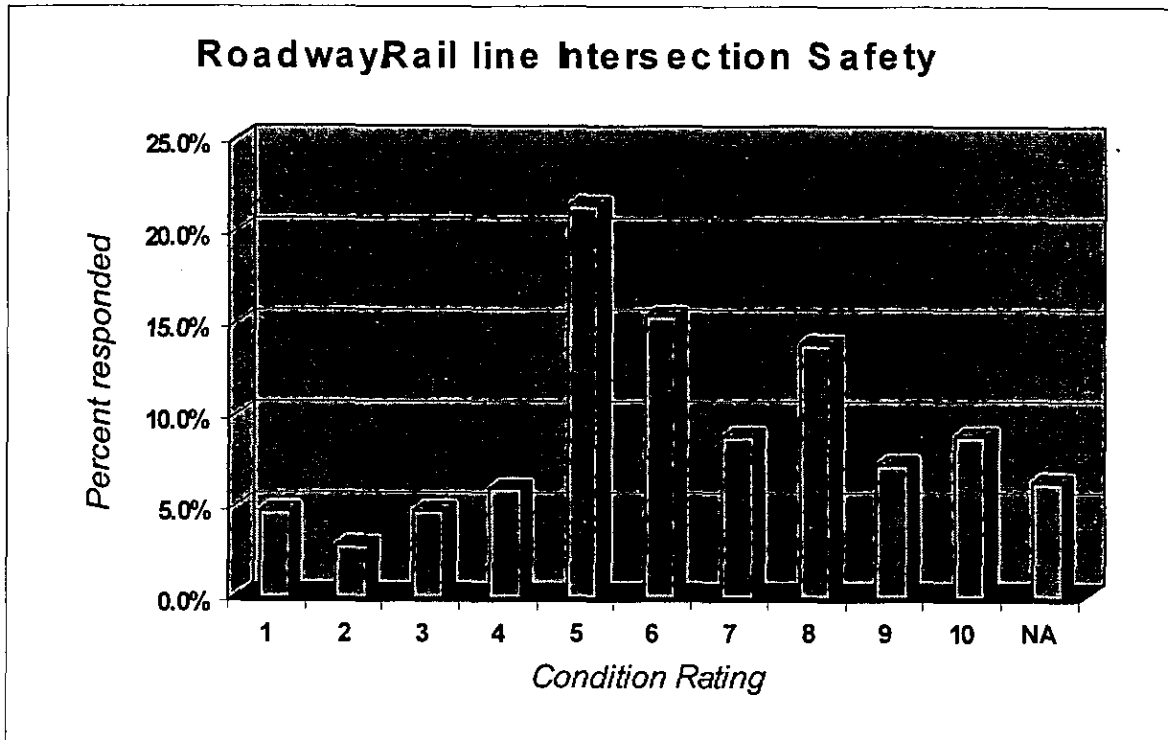
- Improve County Roads; would like natural gas lines and improved communication lines.
- It won't be a close knit community and there won't be as many young people because of the removal of the school. Roads will still be in bad shape.
- Less gravel pits and no dumps.
- Much as it is now, only more houses, better roads, and more enforcement of township regulations. Also, better enforcement of gravel pits and reclamation.
- New town hall to go with our new fire hall. Work on new single family homes with affordable taxes. Keep the green spaces; don't allow the area to become overpopulated or crowded. Keep the rural feel of the area and clean up older and abandoned properties.
- Nice quiet community, nice people, places for kids to play and go to school, and good fire protection: all of these would promote a good safe community if accomplished.
- Paved Saint Louis River Road, lower taxes, lower speed limit on Saint Louis River Road (it's now 55).
- Please bring back our trout streams and rivers to fish in. We must have clean air and safe water to drink so that we can raise our children. Let's not kill any of the beautiful wild animals; we all have rights on this earth. Thanks.
- I would like to see Solway retain its rural flavor. Bigger and more is not better. We move there for the very reason of being in the country, but not to be in the city. I think it would be nice to get utilities when and where possible; water, gas, sewer, etc. Also, it would be nice to plant trees to get our forest back.
- Remain rural enough that you can still hunt and fish in your own backyard. Continue developing recreation areas.
- Roads should be maintained better; the gravel roads cause damage to vehicles.
- Solway should maintain high standards/quality living: junk piles removed, roadside dumping punished, homes kept in repair, environmental issues addressed appropriately, safety for community members and visitors, regulations for buildings, and allowances and requirements for livestock, pets.
- Stop gravel pits or start beautifying them so that we're not one big hole.
- The most important thing is a "thriving" community center for adults and children, with parents and churches working together with town board to keep the township "away from bad" as a meeting place. Preferably nearly daily, or at least weekly, wholesome and fun activities for everybody, especially teens.
- Areas of higher density housing away from farming areas near Hermantown. Western part should remain very rural. Should remain a township and become a city only to prevent annexation. Industrial and commercial restricted to main state highway corridors. Developers pay full cost of infrastructure. Pits are reclaimed by owners.
- Develop select areas so that we may all benefit from tax revenues (i.e. commercial and industrial), develop more ATV trails, crack down on "dumpy" looking properties (only the ones that are visible from the road, not what's behind fences or in the woods) that are in severe disrepair or that have cluttered yards.
- Hopefully continued slow growth.
- I would like Solway Township to remain a rural area; however, I would also like to see additional recreation facilities and encourage development of some commercial projects to provide employment for those who don't want to work in Duluth or Cloquet.
- Need to preserve the rural country atmosphere, as that's why most families move here. Promoting new businesses is fine as long as they don't impact the country setting we currently enjoy. We understand that would impact taxes favorably, but it wouldn't be worth losing why we moved here in the first place.
- Rural area that provides single family housing from low-moderate to high value. The township should have industry and some infrastructure to support the community's needs; for

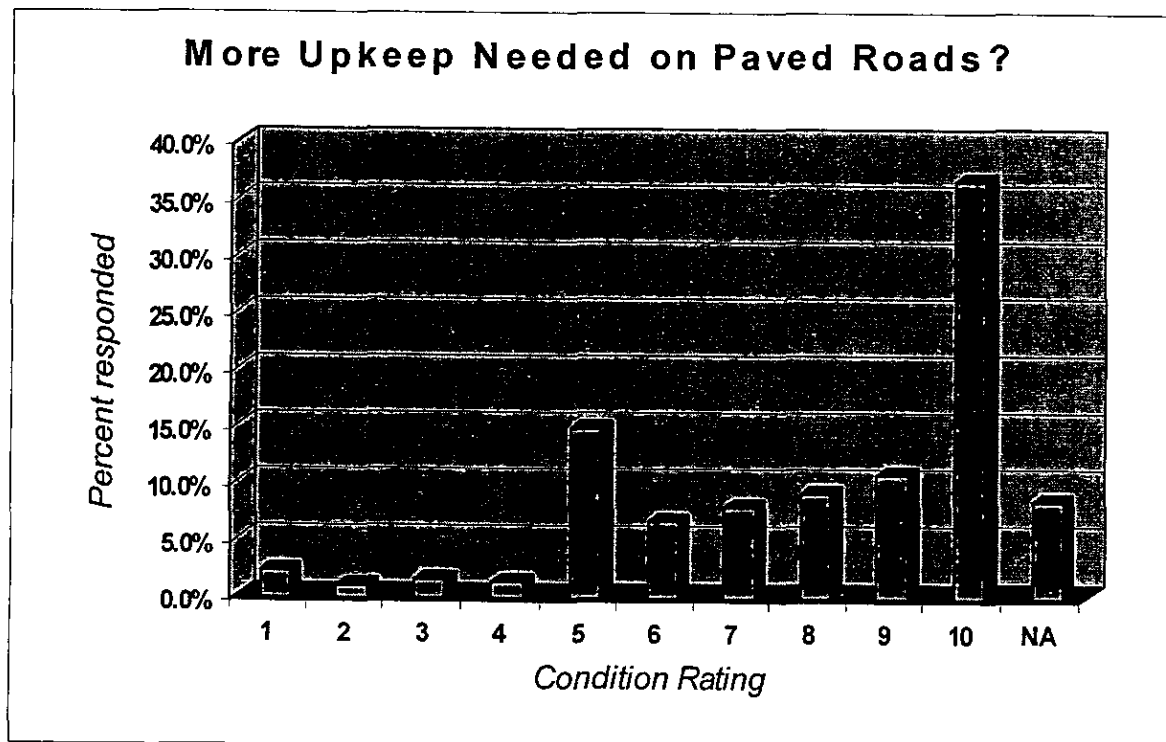
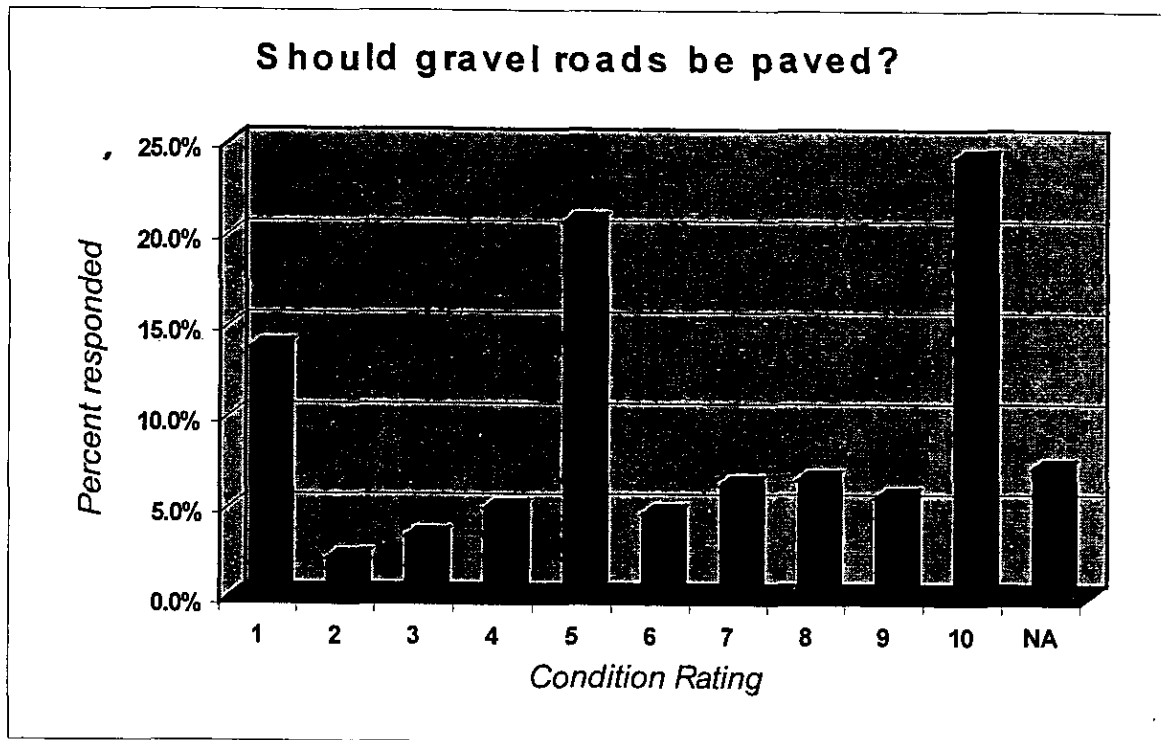
example: video rental, small or quick grocery/gas. Planning must be uppermost in our thoughts to protect the beauty of area.

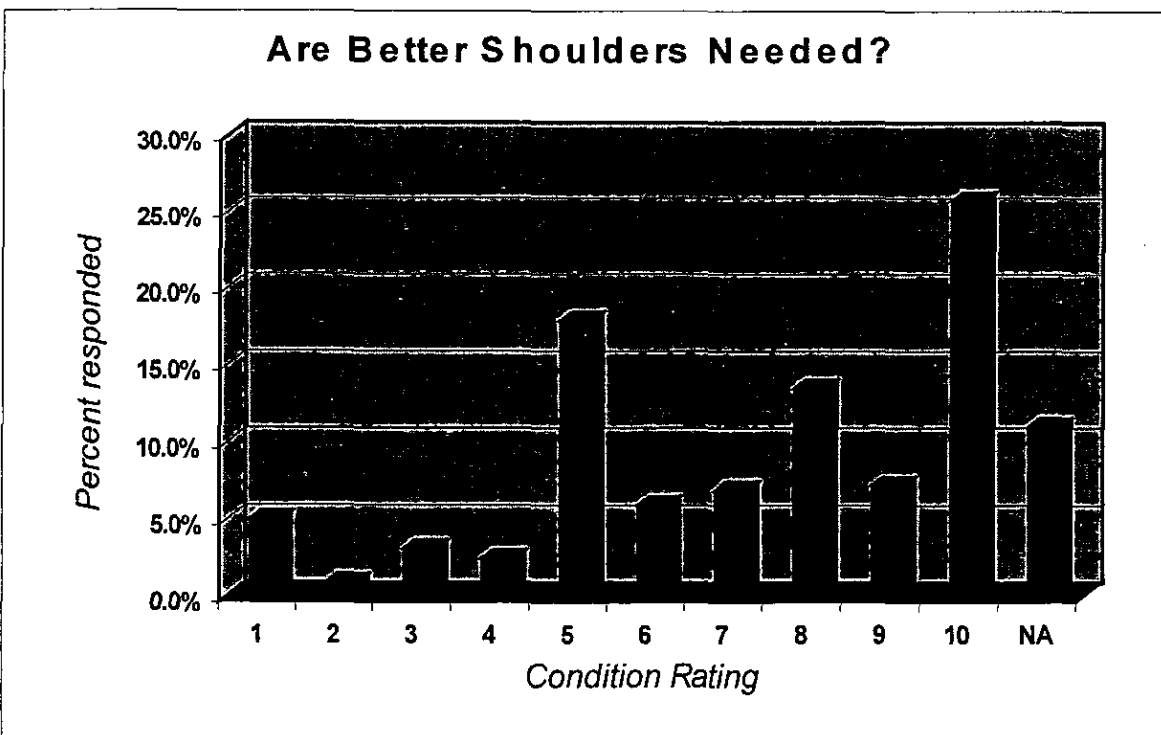
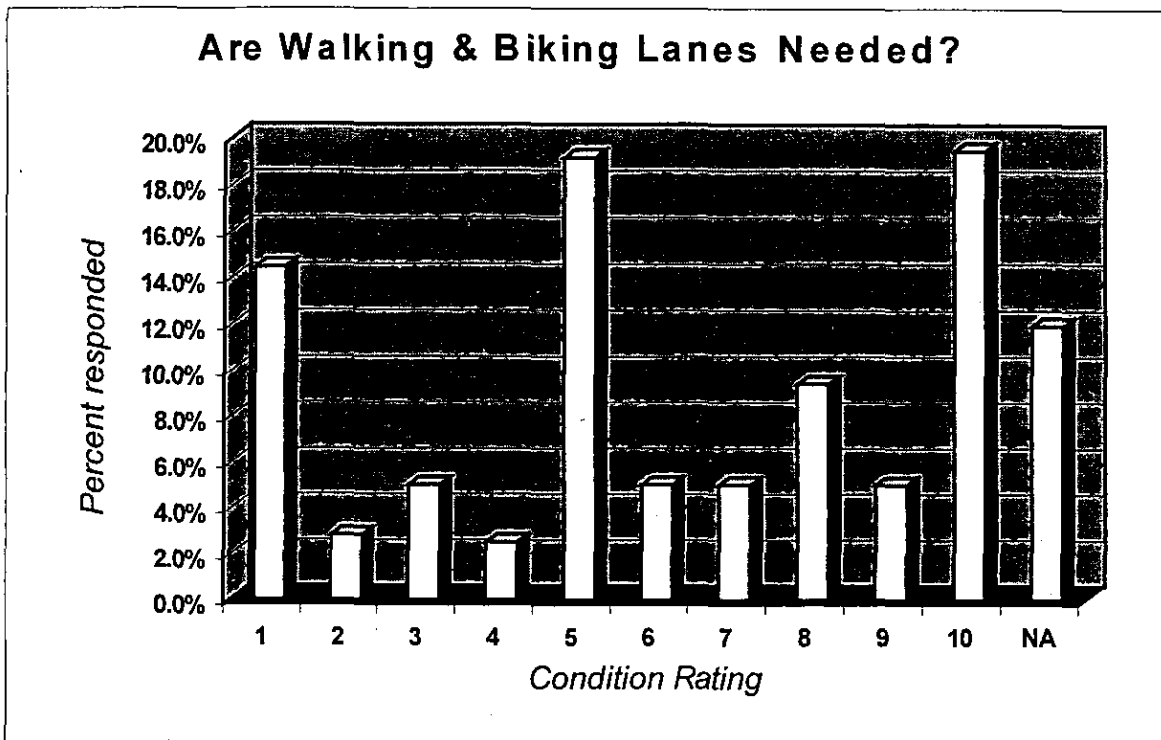
- About the same size population with no school, a good fire department, and poor roads. Without the school, the unity of the township will decline.
- I had great hopes and dreams for this area until our local schools began to be destroyed by those who only think "big city" thoughts. We are country folk, most of us are well-educated, but like a simple and nice lifestyle.
- It will continue to be a small community of friends and neighbors, with the possibility of new young families and possibly a new school.
- We would like it to remain a small rural area, but would like our school back. The bonding referendum could be stopped because we must not need a new school, as Munger was not needed and it seems the kids all fit in the schools that are left.
- At the rate the town is progressing we will tax people out of affordable housing.
- Basically we want it the same as it is now, except we assume there will be some more affordable housing built. We do not want to do our own zoning – Saint Louis County does it!
- Continue as is, with a retirement complex.
- I see it to be a more sought after place to live. I do encourage senior/disabled housing.
- Stay a rural area, not building homes on top of each other, and no more mobile homes. And if mobile homes are permitted, they should require 100% of the surrounding home owners' approval. We had a mobile home go in directly across the road from us, and did not know about it until we saw it come down the road. The neighbors that voted approval were all in a different zone across the road from us. They can't see it and are on a different road. We see it every time we look out the living room window.
- Clean potable water is paramount to survival of Solway. The water table should not be exposed at all costs; this practice should be condemned.
- Would like to have city/township sewer systems for all homes to be connected to.

Appendix B

Appendix B: Solway Survey Results

Appendix B: Solway Survey Results (cont.)

Appendix B: Solway Survey Results (cont.)

Appendix B: Solway Survey Results (cont.)

EFFECTUATION

This amendment to Ordinance No. 27, Article II, Section 1 - Solway Township Comprehensive Land Use Plan, shall take effect and be in full force on the 13th day of March, 2001, upon its adoption by the St. Louis County Board of Commissioners and its publication in the official newspaper(s) of St. Louis County as provided by Minnesota Statutes.

A public hearing was held by the St. Louis County Planning Commission on January 18, 2001, and by the St. Louis County Board of Commissioners on March 13, 2001, and recommended by the Planning Commission to the County Board for adoption on the 8th day of February, 2001.

Commissioner Sweeney moved the adoption of this ordinance amendment, Commissioner Raukar duly seconded the motion, and the ordinance amendment was adopted on the following vote:

Yeas: Commissioners Fink, Fay, Forsman, Sweeney, Plesha, Raukar, and Chair Kron - 7

Nays: None

Absent: None



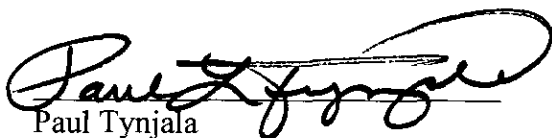
Bill Kron
Chairman, County Board

Certified as a complete and accurate copy
of Ordinance No. 27, Article II, Section I -
Solway Township Comprehensive Land Use
Plan



Gordon McFaul, County Auditor

ATTEST:



Paul Tynjala
Clerk of the County Board